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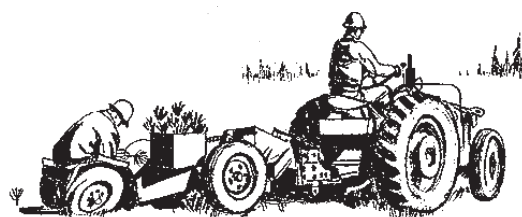
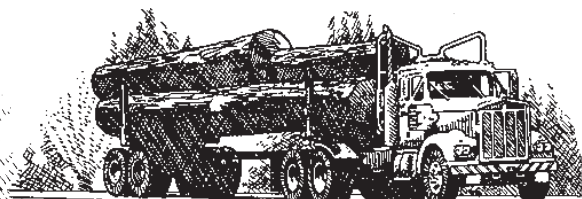
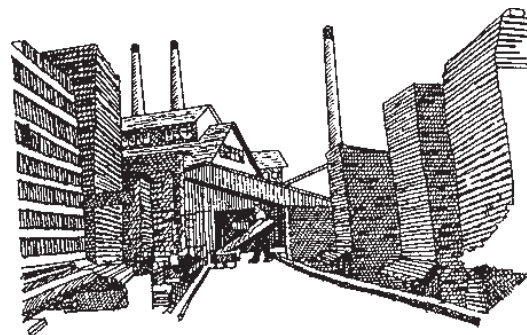
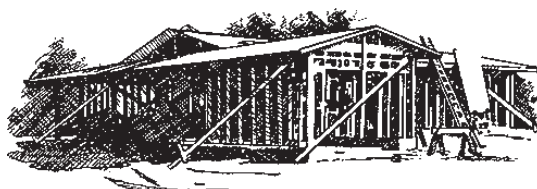


Southern
Research Station

Resource Bulletin
SRS-92

Georgia's Timber Industry— An Assessment of Timber Product Output and Use, 2001

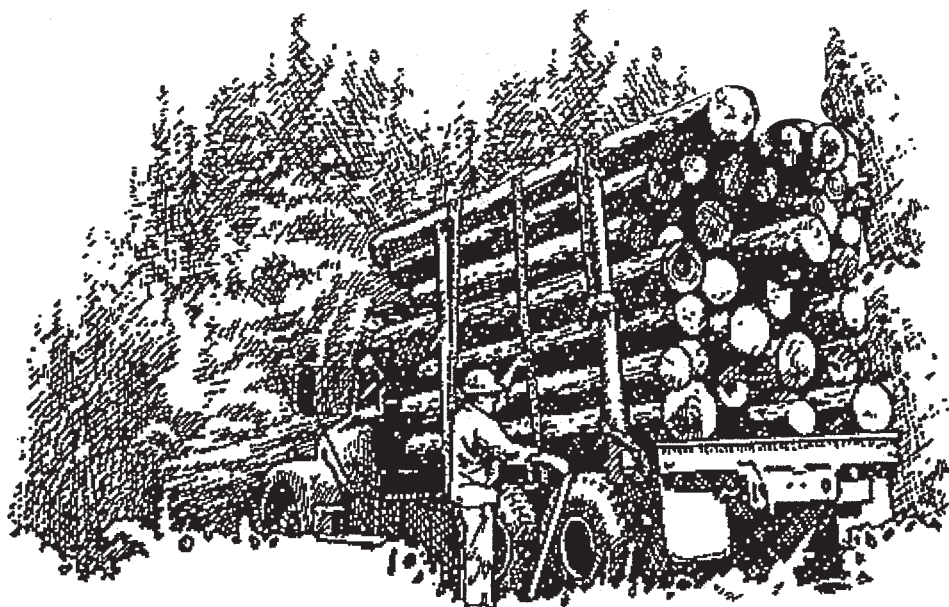
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Foreword

This report contains the findings of a 2001 canvass of all primary wood-using plants in Georgia, and presents changes in product output and residue use since 1999. It complements the Forest Inventory and Analysis periodic inventory of volume and removals from the State's timberland. The canvass was conducted to determine the amount and source of wood receipts and annual timber product drain, by county, in 2001 and to determine interstate and cross-regional movement of industrial roundwood. Only primary wood-using mills were canvassed. Primary mills are those that process roundwood in log or bolt form or as chipped roundwood. Examples of industrial roundwood products are saw logs, pulpwood, veneer logs, poles, and logs used for composite board products. Mills producing products from residues generated at primary and secondary processors were not canvassed. Trees chipped in the woods were included in the estimate of timber drain only if they were delivered to a primary domestic manufacturer.

A 100-percent canvass of all wood processors in Georgia was conducted in 2002 to obtain information for 2001. In addition, roundwood from out-of-State mills known to be using logs or bolts harvested from Georgia timberland was incorporated into Georgia production estimates. Each mill was canvassed by mail or through personal contact at plant locations. Telephone contacts followed mailed questionnaire responses when additional information or clarification

of a response was necessary. In the event of a nonresponse, data collected in previous surveys were updated using current data collected for mills of similar size, product type, and location. Surveys for all timber products other than pulpwood began in 1961, and are currently conducted every 2 years.

Pulpwood production data were taken from an annual canvass of all southern pulpmills. Medium density fiberboard, insulating board, and hardboard plants were included in this survey.

Acknowledgments

The authors thank Tommy Loggins for review and comments; Dumitru Salajanu for the maps; Anne Jenkins, Janet Griffin, and Sharon Johnson for tables, graphs, and statistical checking; and Paul Smith, Diana Corbin, and Louise Wilde for editorial review, styling, and publication of this report.

The Southern Research Station gratefully acknowledges the cooperation and assistance provided by the Georgia Forestry Commission in collecting mill data. Appreciation is also extended to forest industry and mill managers for providing timber products information.

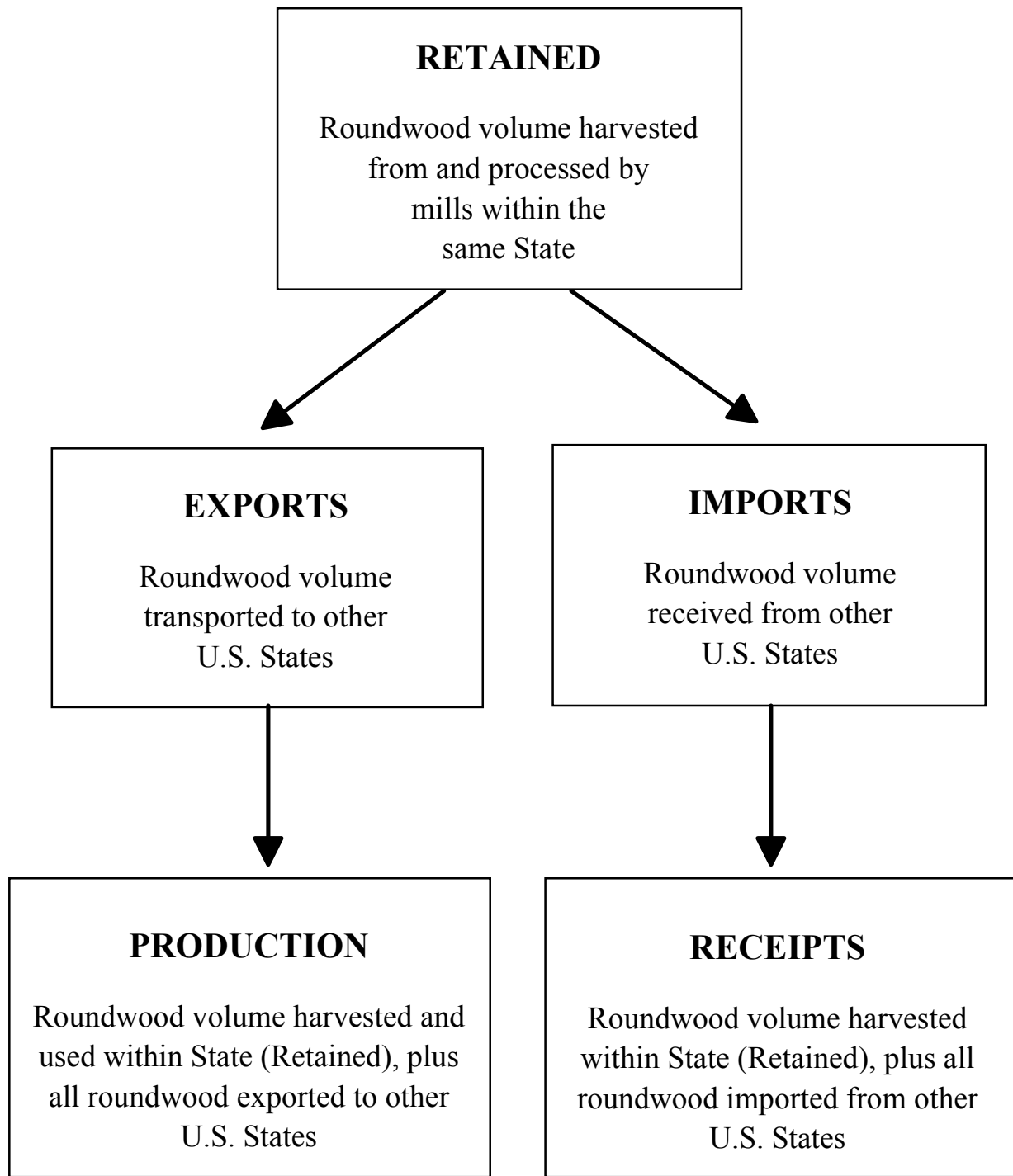


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^a All tables in this report are available in Microsoft® Excel workbook files. Upon request, these files will be supplied on 3½-inch diskettes.

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$$\text{Production} = \text{Retained} + \text{Exports}$$

$$\text{Receipts} = \text{Retained} + \text{Imports}$$

Figure 1—Movement of roundwood exports and imports within the United States.

Georgia's Timber Industry— An Assessment of Timber Product Output and Use, 2001

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Output of Industrial Timber Products

Note: Certain terms used in this report—retained, export, import, production, and receipts—have specialized meanings and relationships unique to the Forest Inventory and Analysis Units across the country that deal with timber products output (fig. 1).

All Products

- Between 1999 and 2001, the combined industrial timber products output (TPO) from roundwood and plant byproducts declined 9 percent, from 1.72 to 1.56 billion cubic feet.
- Timber products output from roundwood was down 122 million cubic feet, or 10 percent, to 1.12 billion cubic feet, while output of plant byproducts declined 35 million cubic feet to 439 million cubic feet.

- Output of softwood roundwood products declined less than 9 percent, totaling 906 million cubic feet, while output of hardwood roundwood products was down 12 percent to 217 million cubic feet (fig. 2).
- Figures 3 and 4 display softwood and hardwood county-level intensity of roundwood production for all industrial products across Georgia. The data are depicted in cubic feet produced per acre of census land area. Counties with the highest production intensity are depicted in the darker shades. For softwoods the darkest shade represents more than 40 cubic feet of production per acre, while for hardwoods the darkest shade represents more than 20 cubic feet per acre.

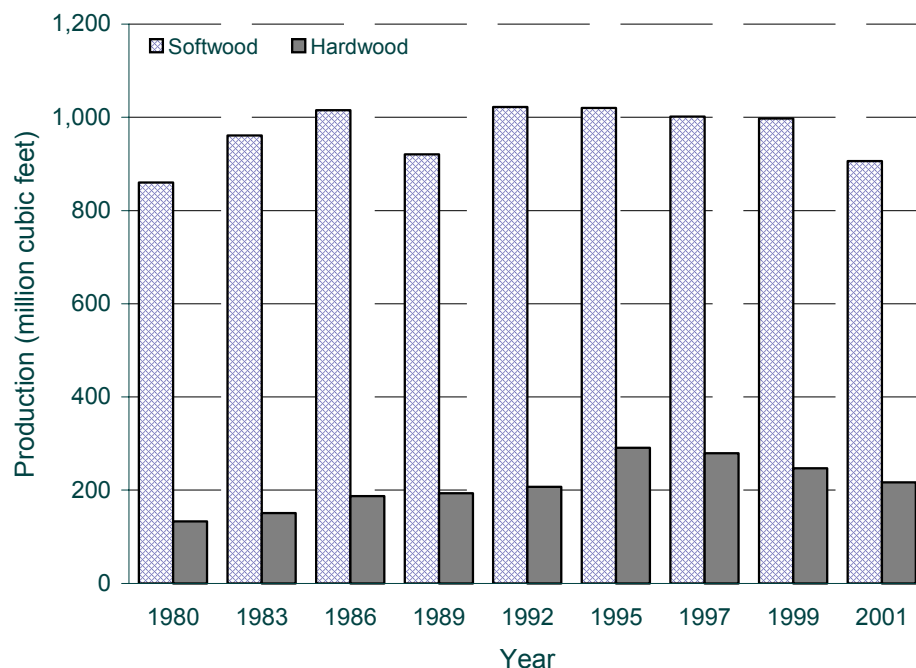


Figure 2—Roundwood production for all products by species group and year (see page 11 for references for individual years).

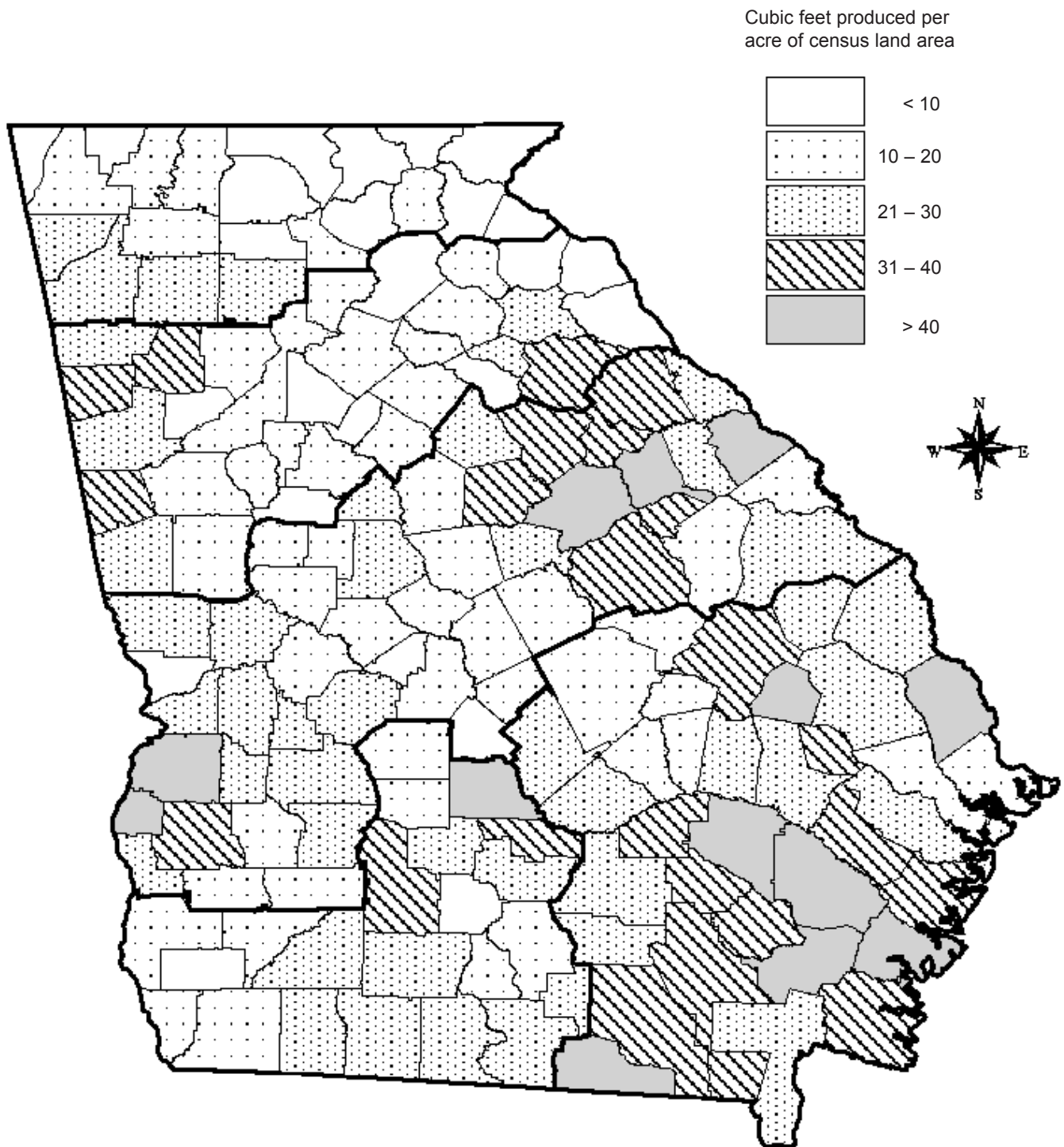


Figure 3—Intensity of roundwood softwood output for all industrial products in Georgia by county, 2001.

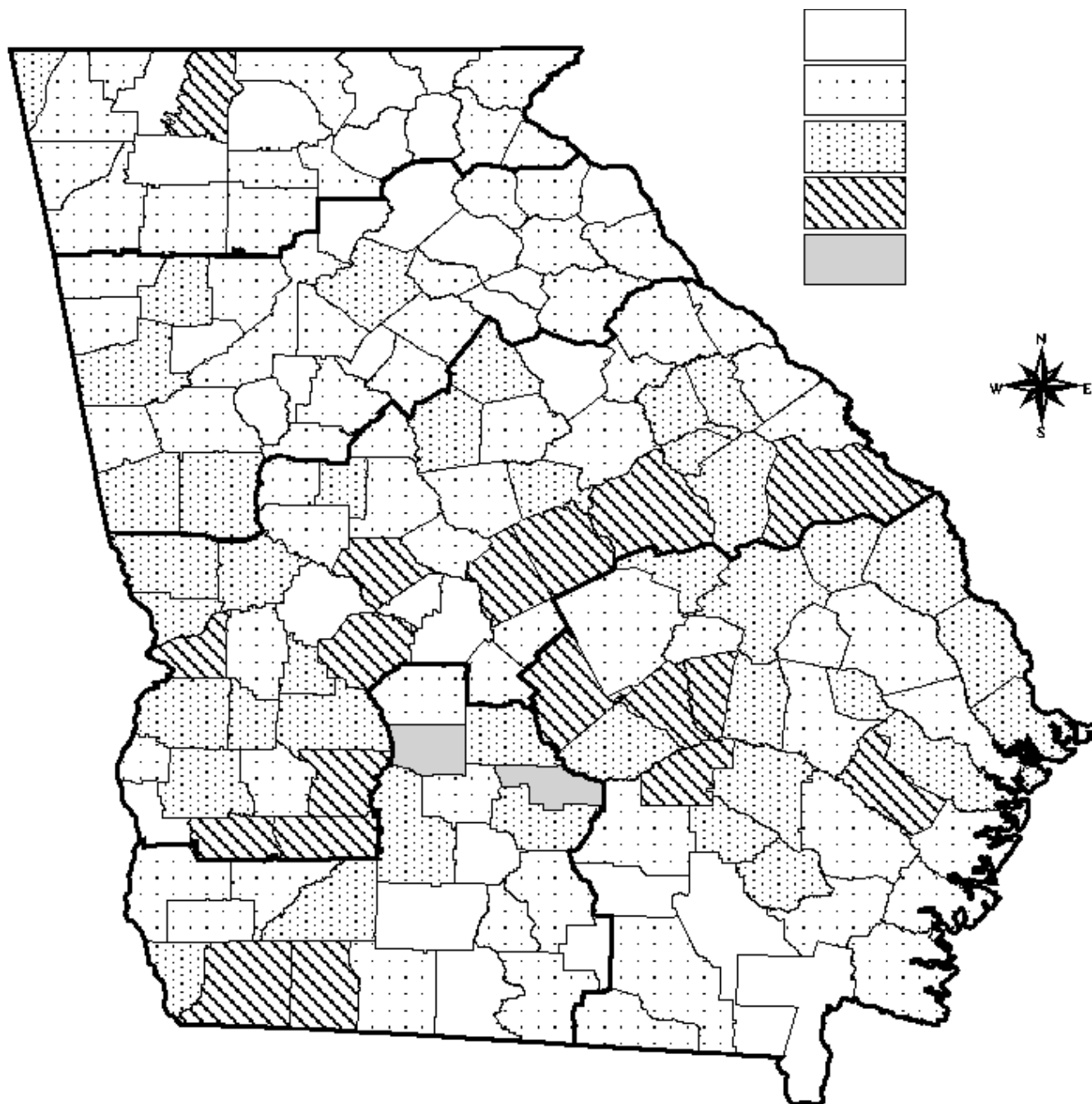


Figure 4—Intensity of roundwood hardwood output for all industrial products in Georgia by county, 2001.

- Pulpwood and saw logs were the principal roundwood products in 2001. Combined output of these two products totaled 986 million cubic feet and accounted for 88 percent of the State's total industrial roundwood output (fig. 5).
- Total receipts at Georgia mills, which included roundwood harvested and retained in the State and roundwood imported from other States, declined 7 percent to 1.17 billion cubic feet. The number of primary roundwood-using plants in Georgia declined from 188 in 1999 to 170 in 2001.

Pulpwood

- Total pulpwood production, including chipped roundwood, declined 16 percent to 501 million cubic feet and accounted for 45 percent of the State's total roundwood TPO. Softwood output declined 15 percent to 366 million cubic feet (5.0 million cords); hardwood output declined 17 percent to 135 million cubic feet (1.8 million cords) (fig. 6).

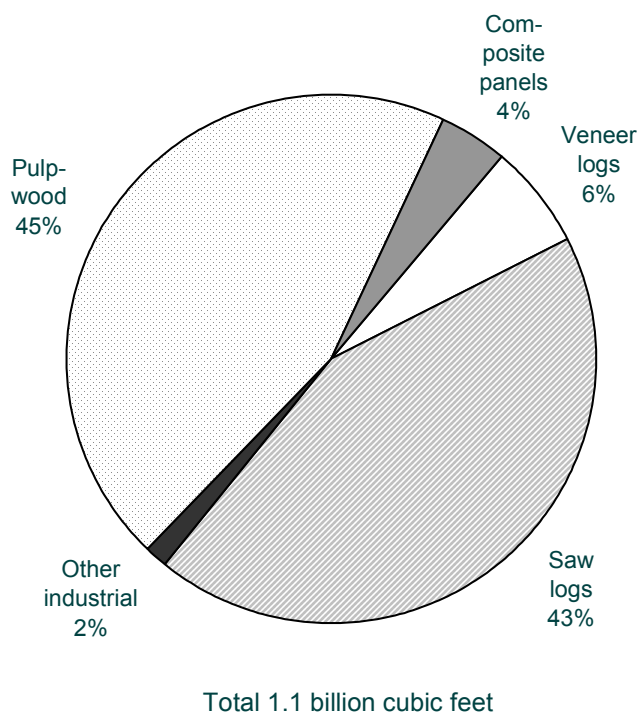


Figure 5—Roundwood production by type of product, 2001.

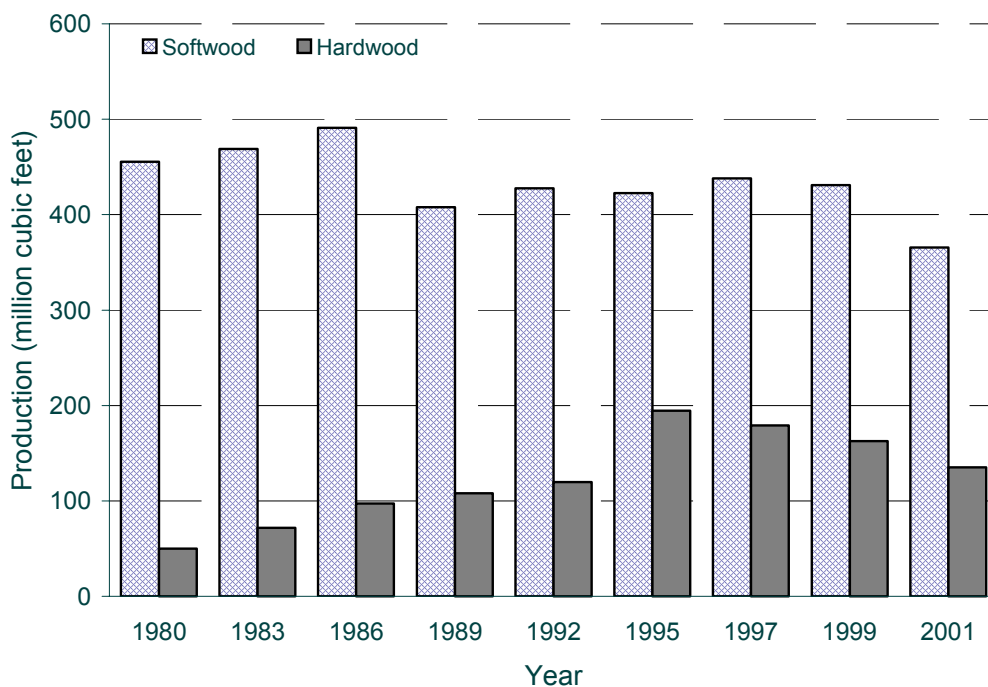


Figure 6—Roundwood pulpwood production by species group and year (see page 11 for references for individual years).

- Thirteen pulpmill facilities were operating and receiving roundwood in Georgia in 2001, one more than in 1999. Total pulpwood receipts for these mills declined 52 million cubic feet to 542 million cubic feet, accounting for 46 percent of total receipts for all mills.
- Eighty-two percent of roundwood cut for pulpwood was retained for processing at Georgia pulpmills. Roundwood pulpwood accounted for 64 percent of total known exports and 68 percent of total imports. Roundwood pulpwood imports exceeded exports by 41 million cubic feet, making the State a net importer of pulpwood.

Saw Logs

- Saw logs accounted for 43 percent of the State's total roundwood products. Output of softwood saw logs declined 5 percent to 424 million cubic feet (2.3 billion board feet, International 1/4-inch rule), while that of hardwood saw logs declined 1 percent to 61 million cubic feet (364 million board feet, International 1/4-inch rule) (fig. 7).
- In 2001, Georgia had 118 sawmills, 11 mills less than in 1999. The total number of sawmills does not include the

several one-man sawmills in the State. Total saw-log receipts were down 25 million cubic feet to 487 million cubic feet. Softwood saw-log receipts declined 5 percent to 429 million cubic feet, while those of hardwoods declined 1 percent to 58 million cubic feet. Of the operating mills in 2001, 22 percent had receipts of less than 1 million board feet, while 37 percent had receipts greater than 10 million board feet. Those 44 mills, however, accounted for 93 percent of total saw-log receipts.

- Georgia retained 93 percent of its saw-log production for domestic manufacture, with saw-log imports exceeding exports by 2 million cubic feet in 2001.

Veneer Logs

- Output of veneer logs in 2001 totaled 73 million cubic feet and accounted for 6 percent of the State's total roundwood TPO volume. Softwood veneer production declined 2 percent to 58 million cubic feet (342 million board feet, International 1/4-inch rule); output of hardwood veneer logs declined 8 percent to 15 million cubic feet (89 million board feet, International 1/4-inch rule) (fig. 8).

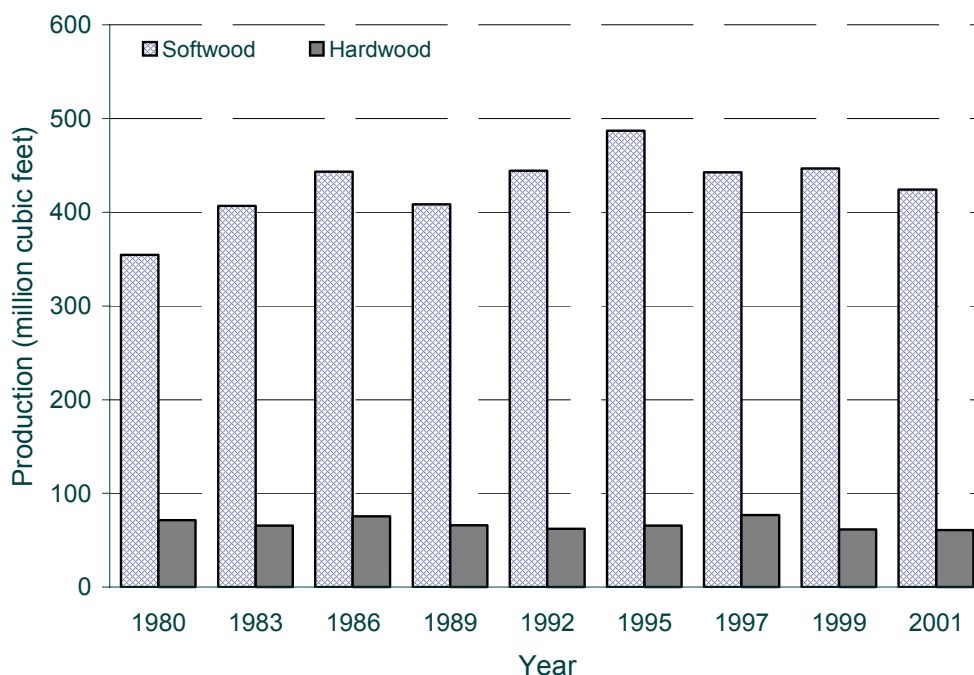


Figure 7—Roundwood saw-log production by species group and year (see page 11 for references for individual years).

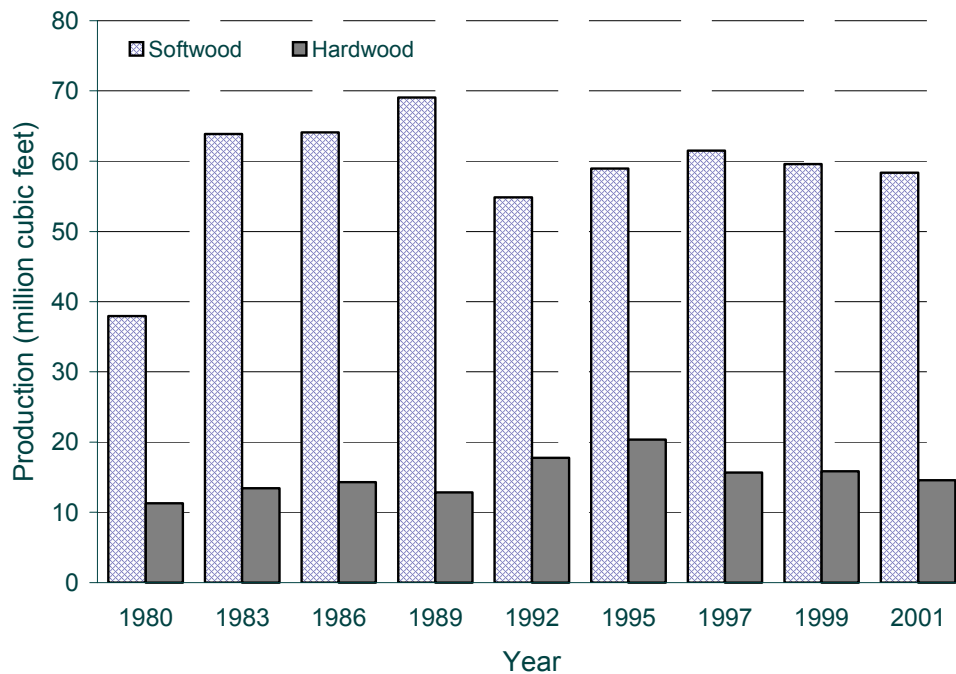


Figure 8—Roundwood veneer-log production by species group and year (see page 11 for references for individual years).

- The number of veneer mills operating in Georgia declined from 12 to 10 since 1999. Receipts of veneer logs declined 13 percent to 74 million cubic feet. Softwood veneer receipts were down 9 million cubic feet, to 53 million cubic feet.
- Georgia retained 86 percent of its veneer-log production for processing at domestic veneer mills. Imports amounted to 11 million cubic feet, and exports totaled 10 million cubic feet, making the State a net importer of roundwood veneer logs.

Composite Panels

- Roundwood harvested from Georgia's forests for composite panels increased 1 percent and totaled 47 million cubic feet. Softwood output was up 5 percent to 42 million cubic feet (576 thousand cords); hardwood production declined 20 percent to 5 million cubic feet (66 thousand cords) (fig. 9).
- Four composite panel, or oriented strand board (OSB), mills were operating in Georgia in 2001. Total receipts for these mills increased 2 percent to 55 million cubic feet, and accounted for 5 percent of the State's total receipts.

- Ninety-three percent of the roundwood production harvested for composite panels was retained for processing at Georgia's mills. Imports amounted to 11 million cubic feet, and exports totaled 3 million cubic feet, making the State a net importer of roundwood used for composite panels.

Other Industrial Products

- Roundwood harvested for other industrial uses such as poles, posts, mulch, firewood, logs for log homes, and all other industrial products totaled 17 million cubic feet, a 19-percent decline from 1999. Softwood made up 96 percent of the other industrial products volume.
- The number of plants producing other industrial products was down from 31 to 25 since 1999. Combined receipts of other industrial products from softwood and hardwood fell 20 percent to 17 million cubic feet.
- Georgia was a net importer of roundwood used for other industrial products, but only by a small margin; nearly all of the 1.7 million cubic feet imported and 1.5 million cubic feet exported were softwood.

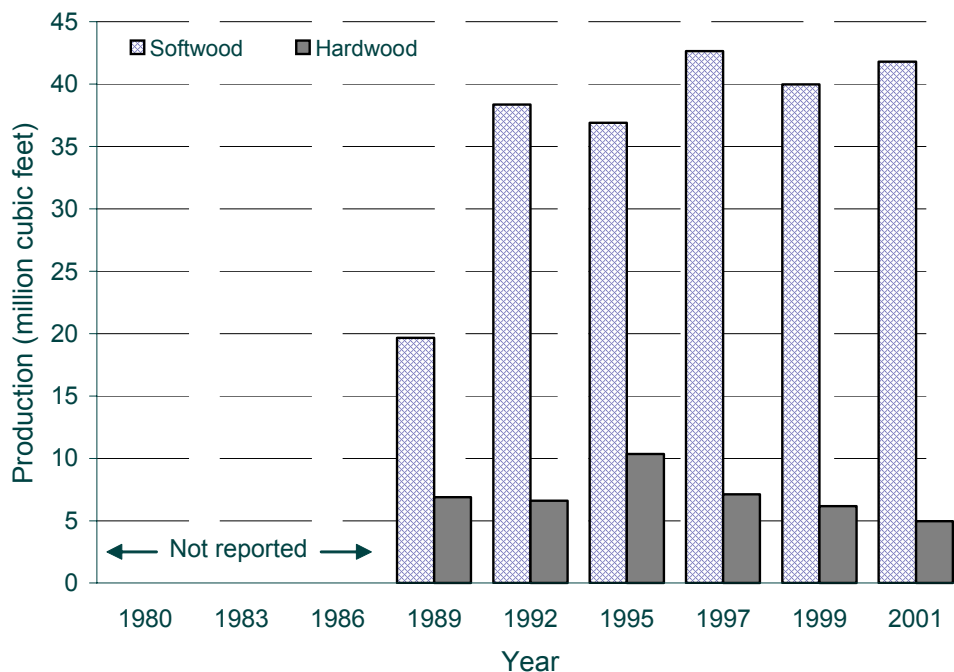


Figure 9—Roundwood production for composite panels by species group and year (see page 11 for references for individual years).

Plant Byproducts

- In 2001, processing of primary products in Georgia mills generated 446 million cubic feet of wood and bark residues. Coarse residues from all primary products amounted to 176 million cubic feet, while bark volume totaled 136 million cubic feet. Collectively, sawdust and shavings made up 30 percent of total residues, or 134 million cubic feet (fig. 10).
- More than 439 million cubic feet, or 98 percent, of the wood and bark residues were used for a product. While 2 percent of the residues were not used for a product, 38 percent of the residues were used for industrial fuel and 33 percent were used for fiber products (fig. 11). More than 143 million cubic feet, or 81 percent, of the coarse residues were used for fiber products. Most of the bark was used for industrial fuel or other miscellaneous products, while 48 percent of the sawdust and shavings were used for industrial fuel.
- The processing of saw logs generated 300 million cubic feet of mill residues, accounting for 67 percent of the total residues produced (fig. 12).

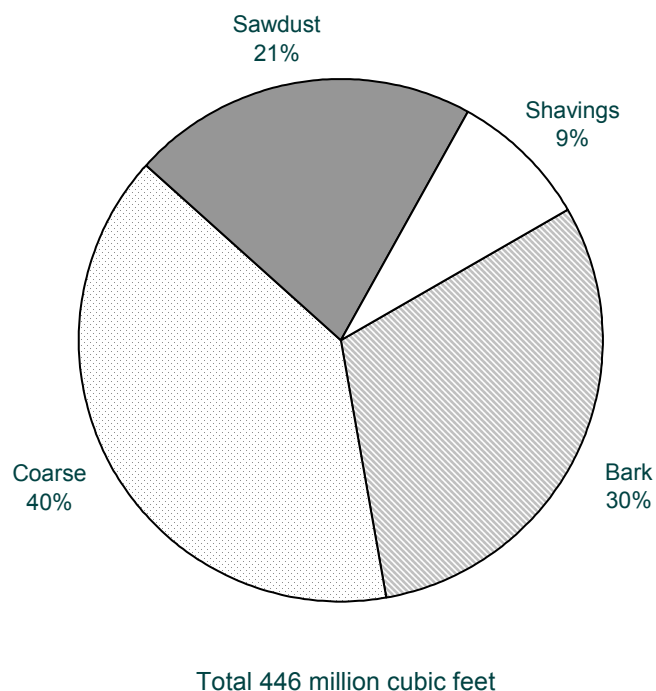


Figure 10—Primary mill residue by residue type, 2001.

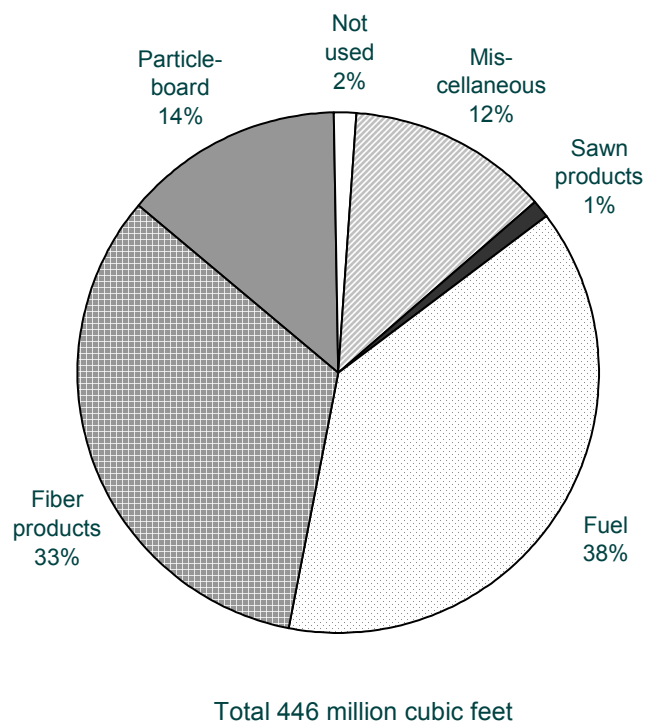


Figure 11—Disposal of residue by product, 2001.

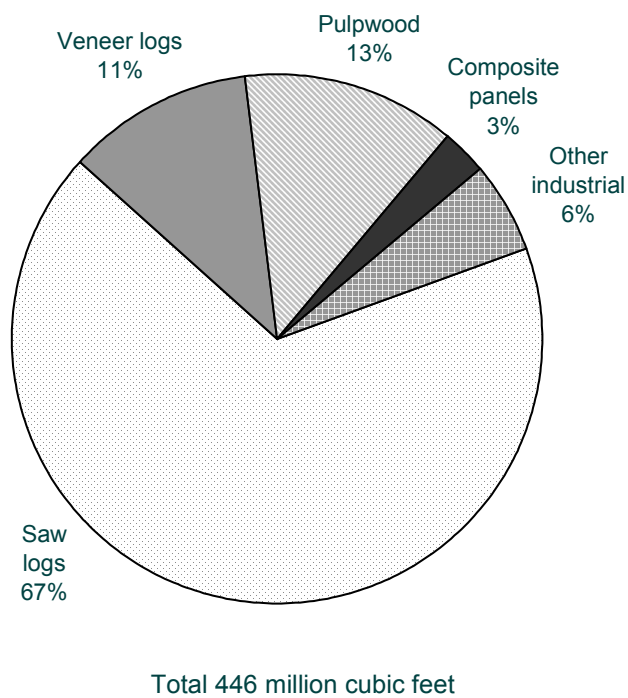


Figure 12—Primary mill residue produced by roundwood type, 2001.

Regional Trends

Output of industrial roundwood products declined in all regions. The North Central region had the largest decline at 23 percent. Most regions experienced significant drops in hardwood output, with the exception of the Southwest region.

Southeast Region

- Roundwood output from the Southeast Georgia region totaled 412 million cubic feet, down 4 percent since 1999.
- Pulpwood accounted for 53 percent of the region's TPO and 43 percent of the State's roundwood pulpwood output. The 175 million cubic feet of saw logs accounted for 42 percent of the total roundwood output for the region and 36 percent of the State's total saw-log output, the highest of any region.
- In the Southeast region, 47 primary wood-using plants were operating during 2001: 28 sawmills, 2 veneer or plywood mills, 6 pulpmills, and 11 other miscellaneous mills. These mills processed 37 percent of the State's total roundwood output.

Southwest Region

- One hundred and sixty-three million cubic feet of roundwood were produced in the Southwest Georgia region, a 5-percent decline.
- Saw-log production of 75 million cubic feet accounted for 46 percent of the region's total roundwood output. Production of pulpwood declined 1 percent but still accounted for 40 percent of the region's total roundwood output. This was the only region that had an increase in hardwood production.
- The 24 mills operating in the Southwest Georgia region in 2001 included 12 sawmills, 3 veneer or plywood mills, 2 pulpmills, 2 composite panel mills, and 5 other miscellaneous mills. These mills accounted for 15 percent of the total roundwood output for the State.

Central Region

- Roundwood output from the Central Georgia region totaled 341 million cubic feet, down 11 percent. Roundwood production from this region accounted for 30 percent of the total roundwood TPO for the State.

- Pulpwood production fell by nearly 40 million cubic feet, or by 21 percent, to 149 million cubic feet. Pulpwood still accounted for 44 percent of the region's total TPO. Saw-log production was down 11 million cubic feet to 150 million cubic feet and accounted for another 44 percent of the region's total roundwood output.
- The 43 primary wood-using plants operating in Central Georgia included 4 pulpmills, 33 sawmills, 3 veneer or plywood mills, and 3 other miscellaneous mills.

North Central Region

- Roundwood output from the North Central Georgia region totaled 136 million cubic feet, a 23-percent decline since 1999. This region accounted for 12 percent of the State's total TPO.
- Saw-log production was down 7 percent to 54 million cubic feet, accounting for 40 percent of the region's total roundwood output. Production of pulpwood dropped 47 percent to 38 million cubic feet and accounted for 28 percent of the region's total roundwood output. With 27 and 16 million cubic feet, respectively, this region accounted for 37 percent of the State's veneer output and 34 percent of the composite panel production.
- In the North Central region, 21 primary wood-using plants were operating during 2001: 13 sawmills, 2 veneer or plywood mills, 2 composite panel mills, and 4 other miscellaneous mills.

Northern Region

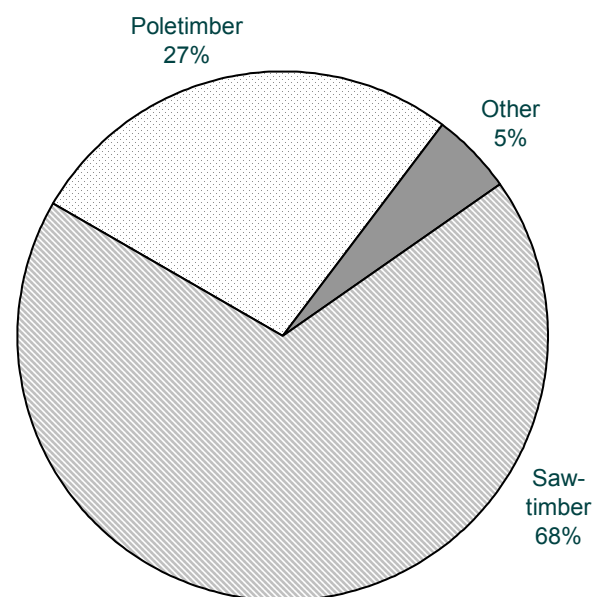
- Roundwood output from the Northern Georgia region totaled 70 million cubic feet, an 11-percent decline since 1999.
- Saw-log production was down 3 percent to 32 million cubic feet and accounted for 45 percent of the region's total roundwood output. Pulpwood production was down 18 percent and accounted for 45 percent of the region's total TPO.
- In the Northern region, 35 primary wood-using plants were operating during 2001: 32 sawmills, 1 pulpmill, and 2 other miscellaneous mills. These mills processed 6 percent of the State's total roundwood output.

Total Roundwood Output

Using the most recent inventory data for Georgia, product output by source, ownership, and detailed species group was estimated.

Source

- In addition to the 1.12 billion cubic feet of roundwood output for industrial roundwood, an estimated 64 million cubic feet were harvested for domestic fuelwood, bringing Georgia's total roundwood output to 1.19 billion cubic feet.
- Ninety-five percent of total roundwood output was considered growing-stock volume (sawtimber and poletimber) from timberland sources. Other sources (such as saplings; stumps, tops, and limbs of trees on timberland; and trees on nonforest land) contributed an estimated 62 million cubic feet, or 5 percent of total roundwood output (fig. 13).



Total 1.2 billion cubic feet

Figure 13—Roundwood output by source, 2001.

Ownership

- An estimated 804 million cubic feet, or 68 percent, of the total roundwood output came from nonindustrial private forest lands. Forest industry lands contributed 336 million cubic feet, or 28 percent of the output. Public lands made up the remaining 4 percent, or 47 million cubic feet (fig. 14).

Species

- The loblolly and shortleaf pine group provided the most volume of any softwood species group, accounting for 55 percent of the total softwood output (fig. 15). The longleaf-slash pine type accounted for 40 percent of the softwood output. In hardwoods, the red oak and white oak groups combined accounted for 112 million cubic feet, or 41 percent of total hardwood output (fig. 16).

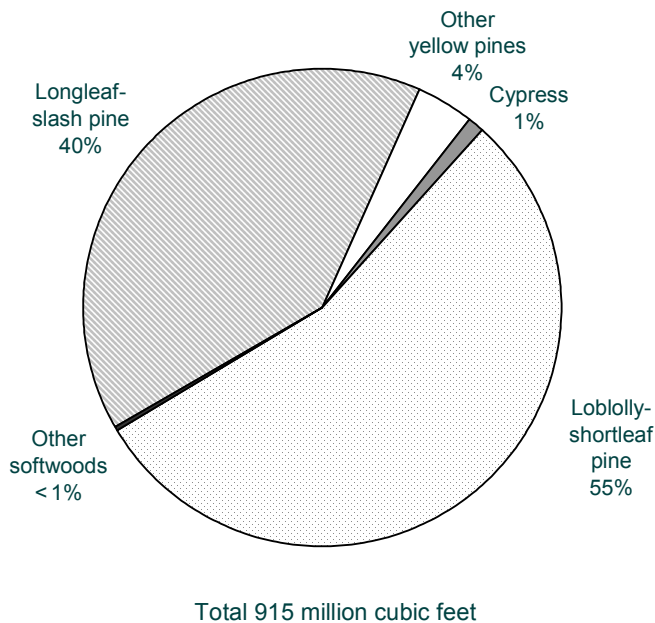


Figure 15—Roundwood output by softwood species group, 2001.

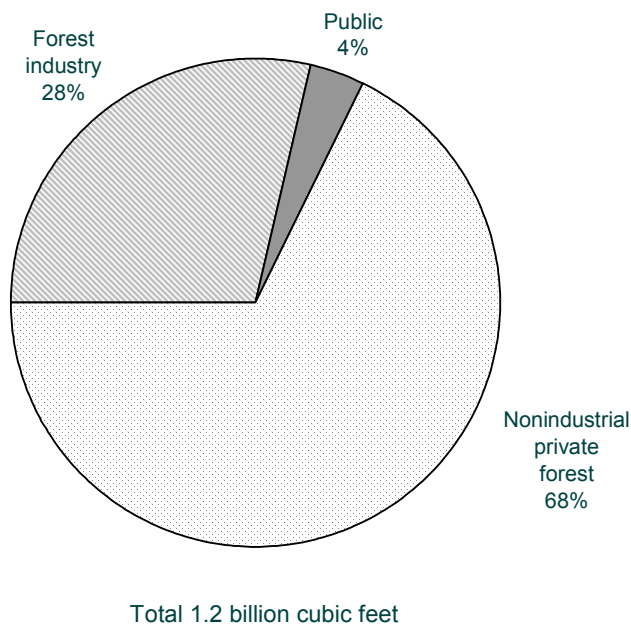


Figure 14—Roundwood output by ownership, 2001.

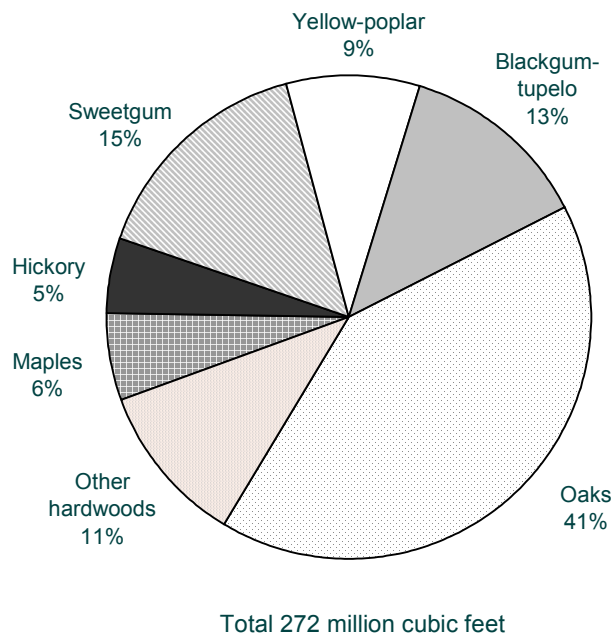


Figure 16—Roundwood output by hardwood species group, 2001.

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Definition of Terms

Board foot. A unit of measure applied to lumber that is 1-foot long, 1-foot wide, and 1-inch thick (or its equivalent) and also associated with roundwood as to its potential yield of such products.

Byproducts. Primary wood products, e.g., pulp chips, animal bedding, and fuelwood, recycled from mill residues.

Composite panels. Roundwood products manufactured into chips, wafers, strands, flakes, shavings, or sawdust and then reconstituted into a variety of panel and engineered lumber products.

Consumption. The quantity of a commodity, such as pulpwood, utilized by a particular mill or group of mills.

Drain. The volume of roundwood removed from any geographic area where timber is grown.

Exports. The volume of domestic roundwood utilized by mills outside the State where timber was cut.

Fiber products. Byproducts used in the manufacture of pulp, paper, paperboard, and composite products, such as chipboard.

Fuelwood production. The volume of roundwood harvested to produce some form of energy, e.g., heat, steam, in residential, industrial, or institutional settings.

Growing-stock removals. The growing-stock volume removed from poletimber and sawtimber trees in the timberland inventory. (Note: Includes volume removed for roundwood products, logging residues, and other removals.)

Growing-stock trees. Living trees of commercial species classified as sawtimber, poletimber, saplings, and seedlings. Growing-stock trees must contain at least one 12-foot or two 8-foot logs in the saw-log portion, currently or potentially (if too small to qualify). The log(s) must meet dimension and merchantability standards and have, currently or potentially, one-third of the gross board-foot volume in sound wood.

Growing-stock volume. The cubic-foot volume of sound wood in growing-stock trees at least 5.0 inches d.b.h. from a 1-foot stump to a minimum 4.0-inch top d.o.b. of the central stem.

Hardwoods. Dicotyledonous trees, usually broadleaf and deciduous.

Soft hardwoods. Hardwood species with an average specific gravity of 0.50 or less, such as gums, yellow-poplar, cottonwoods, red maple, basswoods, and willows.

Hard hardwoods. Hardwood species with an average specific gravity greater than 0.50, such as oaks, hard maples, hickories, and beech.

Imports. The volume of domestic roundwood delivered to a mill or group of mills in a specific State but harvested outside that State.

Industrial fuelwood. A roundwood product, with or without bark, used to generate energy at a manufacturing facility such as a wood-using mill.

Industrial roundwood products. Any primary use of the main stem of a tree, such as saw logs, pulpwood, veneer logs, intended to be processed into primary wood products such as lumber, wood pulp, sheathing, at primary wood-using mills.

International ¼-inch rule. A log rule or formula for estimating the board-foot volume of logs, allowing ½-inch of taper for each 4-foot length. The rule appears in a number of forms that allow for kerf. In the form used by FIA, a ¼-inch of kerf is assumed. This rule is used as the USDA Forest Service standard log rule in the Eastern United States.

Log. A primary forest product harvested in long, primarily 8-, 12-, and 16-foot lengths.

Logging residues. The unused merchantable portion of growing-stock trees cut or destroyed during logging operations.

Merchantable portion. That portion of live trees 5.0 inches d.b.h. and larger between a 1-foot stump and a minimum 4.0-inch top d.o.b. on the central stem. That portion of primary forks from the point of occurrence to a minimum 4.0-inch top d.o.b. is included.

Merchantable volume. Solid-wood volume in the merchantable portion of live trees.

Noncommercial species. Tree species of typically small size, poor form, or inferior quality that normally do not develop into trees suitable for industrial wood products.

Nonforest land. Land that has never supported forests and land formerly forested where timber production is precluded by development for other uses.

Nongrowing-stock sources. The net volume removed from the nongrowing-stock portions of poletimber and sawtimber trees (stumps, tops, limbs, cull sections of central stem) and from any portion of a rough, rotten, sapling, dead, or nonforest tree.

Other forest land. Forest land other than timberland and productive reserved forest land. It includes available and reserved forest land that is incapable of producing annually 20 cubic feet per acre of industrial wood under natural conditions because of adverse site conditions such as sterile soils, dry climate, poor drainage, high elevation, steepness, or rockiness.

Other products. A miscellaneous category of roundwood products, e.g., cooperage, excelsior, shingles, and mill residue byproducts (charcoal, bedding, mulch, etc.).

Other removals. The growing-stock volume of trees removed from the inventory by cultural operations such as timber stand improvement, land clearing, and other changes in land use, resulting in the removal of the trees from timberland.

Other sources. (See: Nongrowing-stock sources.)

Ownership. The property owned by one ownership unit, including all parcels of land in the United States.

National forest land. Federal land that has been legally designated as national forests or purchase units, and other land under the administration of the Forest Service, including experimental areas and Bankhead-Jones Title III land.

Forest industry land. Land owned by companies or individuals operating primary wood-using plants.

Nonindustrial private forest (NIPF) land. Privately owned land excluding forest industry land.

Corporate. Owned by corporations, including incorporated farm ownerships.

Individual. All lands owned by individuals, including farm operators.

Other public. An ownership class that includes all public lands except national forests.

Miscellaneous Federal land. Federal land other than national forests.

State, county, and municipal land. Land owned by States, counties, and local public agencies or municipalities, or land leased to these governmental units for 50 years or more.

Plant residues. Wood material generated in the production of timber products at primary manufacturing plants.

Coarse residues. Material, such as slabs, edgings, trim, veneer cores and ends, which is suitable for chipping.

Fine residues. Material, such as sawdust, shavings, and veneer residue, which is not suitable for chipping.

Plant byproducts. Residues (coarse or fine) used in the further manufacture of industrial products for consumer use or as fuel.

Unused plant residues. Residues (coarse or fine) that are not used for any product, including fuel.

Posts, poles, and pilings. Roundwood products milled (cut or peeled) into standard sizes (lengths and circumferences) to be put in the ground to provide vertical and lateral support in buildings, foundations, utility lines, and fences. May also include nonindustrial (unmilled) products.

Poletimber-size trees. Softwoods 5.0 to 8.9 inches d.b.h. and hardwoods 5.0 to 10.9 inches d.b.h.

Primary wood-using plants. Industries that convert roundwood products (saw logs, veneer logs, pulpwood, etc.) into primary wood products, such as lumber, veneer or sheathing, wood pulp.

Production. The total volume of known roundwood harvested from land within a State, regardless of where it is

consumed. Production is the sum of timber harvested and used within a State, and all roundwood exported to other States.

Pulpwood. A roundwood product that will be reduced to individual wood fibers by chemical or mechanical means. The fibers are used to make a broad generic group of pulp products that includes paper products, as well as fiberboard, insulating board, and paperboard.

Receipts. The quantity or volume of industrial roundwood received at a mill or by a group of mills in a State, regardless of the geographic source. Volume of roundwood receipts is equal to the volume of roundwood retained in a State plus roundwood imported from other States.

Retained. Roundwood volume harvested from and processed by mills within the same State.

Rotten trees. Live trees of commercial species not containing at least one 12-foot saw log, or two noncontiguous saw logs, each 8 feet or longer, now or prospectively, primarily because of rot or missing sections, and with less than one-third of the gross board-foot tree volume in sound material.

Rough trees. Live trees of commercial species not containing at least one 12-foot saw log, or two noncontiguous saw logs, each 8 feet or longer, now or prospectively, primarily because of roughness, poor form, splits, and cracks, and with less than one-third of the gross board-foot tree volume in sound material; and live trees of noncommercial species.

Roundwood (roundwood logs). Logs, bolts, or other round sections cut from trees for industrial manufacture or consumer uses.

Roundwood chipped. Any timber cut primarily for industrial manufacture, delivered to nonpulp mills, chipped, and then sold to pulpmills for use as fiber. Includes tops, jump sections, whole trees, and pulpwood sticks.

Roundwood products. Any primary product, such as lumber, veneer, composite panels, poles, pilings, pulp, or fuelwood that is produced from roundwood.

Roundwood product drain. That portion of total drain used for a product.

Salvable dead trees. Standing or downed dead trees that were formerly growing stock and considered merchantable. Trees must be at least 5.0 inches d.b.h. to qualify.

Saplings. Live trees 1.0 to 5.0 inches d.b.h.

Saw log. A roundwood product, usually 8 feet in length or longer, processed into a variety of sawn products such as lumber, cants, pallets, railroad ties, and timbers.

Saw-log portion. The part of the bole of sawtimber trees between a 1-foot stump and the saw-log top.

Saw-log top. The point on the bole of sawtimber trees above which a conventional saw log cannot be produced. The minimum saw-log top is 7.0 inches d.o.b. for softwoods and 9.0 inches d.o.b. for hardwoods for FIA standards.

Sawtimber-size trees. Softwoods 9.0 inches d.b.h. and larger and hardwoods 11.0 inches d.b.h. and larger.

Sawtimber volume. Growing-stock volume in the saw-log portion of sawtimber-sized trees in board feet (International 1/4-inch rule).

Seedlings. Trees less than 1.0 inch d.b.h. and greater than 1 foot tall for hardwoods, greater than 6 inches tall for softwoods, and greater than 0.5 inch in diameter at ground level for longleaf pine.

Select red oaks. A group of several red oak species composed of cherrybark, Shumard, and northern red oaks. Other red oak species are included in the “other red oaks” group.

Select white oaks. A group of several white oak species composed of white, swamp chestnut, swamp white, chinkapin, Durand, and bur oaks. Other white oak species are included in the “other white oaks” group.

Softwoods. Coniferous trees, usually evergreen, having leaves that are needles or scalelike.

Standard cord. A unit of measure applied to roundwood, usually bolts or split wood. It is a stack of wood 4 feet high, 4 feet wide, and 8 feet long encompassing 128 cubic feet of wood, bark, and air space. This usually translates to approximately 75.0 to 81.0 cubic feet of solid wood for pulpwood, because pulpwood is more uniform.

Standard unit. A unit measure applied to roundwood timber products. Board feet (International 1/4-inch rule) is the standard unit used for saw logs and veneer; cords are used for pulpwood, composite panel, and fuelwood; hundred pieces for poles; thousand pieces for posts; and thousand cubic feet for all other miscellaneous forest products.

Timberland. Forest land capable of producing 20 cubic feet of industrial wood per acre per year and not withdrawn from timber utilization.

Timber products. Roundwood products and byproducts.

Timber products output. The total volume of roundwood products from all sources plus the volume of byproducts recovered from mill residues (equals roundwood product drain).

Timber removals. The total volume of trees removed from the timberland inventory by harvesting, cultural operations such as stand improvement, land clearing, or changes in land use. (Note: Includes roundwood products, logging residues, and other removals.)

Tree. Woody plants having one erect perennial stem or trunk at least 3 inches d.b.h., a more or less definitely formed crown of foliage, and a height of at least 13 feet (at maturity).

Upper-stem portion. The part of the main stem of saw-timber trees above the saw-log top and the minimum top diameter of 4.0 inches outside bark, or to the point where the main stem breaks into limbs.

Utilization studies. Studies conducted on active logging operations to develop factors for merchantable portions of trees left in the woods (logging residues), logging damage, and utilization of the unmerchantable portion of growing-stock trees and nongrowing-stock trees.

Veneer log. A roundwood product either rotary cut, sliced, stamped, or sawn into a variety of veneer products such as plywood, finished panels, veneer sheets, or sheathing.

Weight. A unit of measure for mill residues, expressed as oven-dry tons (2,000 oven-dry pounds).

Conversion Factors^a

Saw logs

Softwood	0.18349 cubic foot = 1 board foot 5.45 board feet = 1 cubic foot
Hardwood	0.16807 cubic foot = 1 board foot 5.95 board feet = 1 cubic foot

Veneer logs

Softwood	0.17094 cubic foot = 1 board foot 5.85 board feet = 1 cubic foot
Hardwood	0.16260 cubic foot = 1 board foot 6.15 board feet = 1 cubic foot

Pulpwood^b

Softwood	72.6 cubic feet per cord
Hardwood	75.0 cubic feet per cord

^a Conversion factors vary with stem size (d.b.h.) and species. The factors shown are for trees of average diameters removed in Georgia during the most recent survey period.

^b Cubic feet of solid wood per cord.

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Table 1—Output of industrial products by product and species group, Georgia, 1999 and 2001

Product and species group	Year		Change	Percent change
	1999	2001		
thousand cubic feet				
Saw logs				
Softwood	446,881	424,068	-22,813	-5.1
Hardwood	61,768	61,063	-705	-1.1
Total	508,649	485,131	-23,518	-4.6
Veneer logs				
Softwood	59,547	58,370	-1,177	-2.0
Hardwood	15,858	14,541	-1,317	-8.3
Total	75,405	72,911	-2,494	-3.3
Pulpwood ^a				
Softwood	431,017	365,687	-65,330	-15.2
Hardwood	162,535	135,292	-27,243	-16.8
Total	593,552	500,979	-92,573	-15.6
Composite panels				
Softwood	39,996	41,813	1,817	4.5
Hardwood	6,176	4,960	-1,216	-19.7
Total	46,172	46,773	601	1.3
Other industrial				
Softwood	20,005	16,154	-3,851	-19.3
Hardwood	758	713	-45	-5.9
Total	20,763	16,867	-3,896	-18.8
All industrial				
Softwood	997,446	906,092	-91,354	-9.2
Hardwood	247,095	216,569	-30,526	-12.4
Total	1,244,541	1,122,661	-121,880	-9.8
Byproduct output				
Softwood	396,075	368,371	-27,704	-7.0
Hardwood	78,014	71,115	-6,899	-8.8
Total	474,089	439,486	-34,603	-7.3
Total output				
Softwood	1,393,521	1,274,463	-119,058	-8.5
Hardwood	325,109	287,684	-37,425	-11.5
Total	1,718,630	1,562,147	-156,483	-9.1

^a Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (15,947,000 cubic feet in 1999 and 11,692,000 cubic feet in 2001).

Table 2—Roundwood receipts by product and species group, Georgia, 1999 and 2001

Product and species group	Year		Change	Percent change
	1999	2001		
thousand cubic feet				
Saw logs				
Softwood	453,118	428,938	-24,180	-5.3
Hardwood	58,957	58,269	-688	-1.2
Total	512,075	487,207	-24,868	-4.9
Veneer logs				
Softwood	62,058	52,697	-9,361	-15.1
Hardwood	23,289	21,203	-2,086	-9.0
Total	85,347	73,900	-11,447	-13.4
Pulpwood ^a				
Softwood	417,830	400,206	-17,624	-4.2
Hardwood	175,900	141,820	-34,080	-19.4
Total	593,730	542,026	-51,704	-8.7
Composite panels				
Softwood	39,957	42,069	2,112	5.3
Hardwood	13,430	12,381	-1,049	-7.8
Total	53,387	54,450	1,063	2.0
Other industrial				
Softwood	20,543	16,311	-4,232	-20.6
Hardwood	806	761	-45	-5.6
Total	21,349	17,072	-4,277	-20.0
Total output				
Softwood	993,506	940,221	-53,285	-5.4
Hardwood	272,382	234,434	-37,948	-13.9
Total	1,265,888	1,174,655	-91,233	-7.2

^a Includes roundwood delivered to nonpulp mills, then chipped and sold to pulpmills (18,615,000 cubic feet in 1999 and 13,506,000 cubic feet in 2001).

Table 3—Number of primary wood-using plants by industry, Georgia, 1983-2001

Industry	Year							
	1983	1986	1989	1992	1995	1997	1999	2001
Sawmills	222	239	172	178	144	129	129	118
Veneer mills	19	18	16	14	12	11	12	10
Pulpmills	15	15	14	13	14	13	12	13
Composite panel mills	0	0	3	4	5	5	4	4
Other mills	28	29	26	41	32	28	31	25
All plants	284	301	231	250	207	186	188	170

Table 4—Roundwood receipts by sawmill size, Georgia, 1999 and 2001

Sawmill size class ^a	1999			2001		
	Number of mills	Thousand board feet	Percent of volume	Number of mills	Thousand board feet	Percent of volume
<i>million board feet</i>						
< 1.0	34	6,706	0	26	6,395	0
1.0–4.99	34	92,319	3	35	92,716	4
5.0–9.99	13	86,761	3	13	91,552	3
10.0–49.99	26	612,547	22	24	588,684	22
> 50	22	2,028,632	72	20	1,911,387	71
Total	129	2,826,965	100	118	2,690,734	100

^a Based on volume received as opposed to actual capacity.

Table 5—Roundwood receipts by species and type of mill, Georgia, 2001

Species	Type of mill						
	All mills	Sawmills	Veneer mills		OSB ^a and panels	Pulpmills ^b	Other mills
			Pine plywood	Other veneer			
thousand cubic feet							
Softwood							
Yellow pine	529,860	421,322	42,793	9,904	41,906	NA	13,935
Eastern white pine	1,825	1,825	0	0	0	NA	0
Cedar	164	1	0	0	163	NA	0
Cypress	8,156	5,780	0	0	0	NA	2,376
Other softwood	10	10	0	0	0	NA	0
Unclassified	400,206	0	0	0	0	400,206	0
Total softwoods	940,221	428,938	42,793	9,904	42,069	400,206	16,311
Hardwood							
Blackgum and tupelo	10,561	3,494	1,032	1,240	4,795	NA	0
Soft maple	2,420	1,430	0	32	958	NA	0
Sweetgum	13,489	9,032	558	1,353	2,546	NA	0
Yellow-poplar	25,593	9,335	12,412	2,571	1,108	NA	167
Other soft hardwood	5,161	2,490	0	415	2,256	NA	0
Hickory	1,830	1,438	0	0	0	NA	392
Red oak	22,499	20,840	0	870	718	NA	71
White oak	8,317	7,759	0	493	0	NA	65
Other hard hardwood	2,744	2,451	0	227	0	NA	66
Unclassified	141,820	0	0	0	0	141,820	0
Total hardwoods	234,434	58,269	14,002	7,201	12,381	141,820	761
All species	1,174,655	487,207	56,795	17,105	54,450	542,026	17,072

NA = not applicable.

^a OSB = oriented strand board.

^b Collected only by softwood and hardwood and includes roundwood chipped.

Table 6—Industrial roundwood movement by year and species group, Georgia, 1999 and 2001

Year	Production	Exported to other States	Retained	Imported from other States	Receipts
<i>thousand cubic feet</i>					
Softwood					
1999	997,446	144,874	852,572	140,934	993,506
2001	906,092	112,364	793,728	146,493	940,221
Hardwood					
1999	247,095	42,954	204,141	68,241	272,382
2001	216,569	30,321	186,248	48,186	234,434
All species					
1999	1,244,541	187,828	1,056,713	209,175	1,265,888
2001	1,122,661	142,685	979,976	194,679	1,174,655

Table 7—Industrial roundwood movement by product and species group, Georgia, 2001

Product and species group	Production	Exported to other States	Retained	Imported from other States	Receipts
<i>thousand cubic feet</i>					
Saw logs					
Softwood	424,068	31,949	392,119	36,819	428,938
Hardwood	61,063	4,213	56,850	1,419	58,269
Total	485,131	36,162	448,969	38,238	487,207
Veneer logs					
Softwood	58,370	9,132	49,238	3,459	52,697
Hardwood	14,541	933	13,608	7,595	21,203
Total	72,911	10,065	62,846	11,054	73,900
Pulpwood^a					
Softwood	365,687	66,613	299,074	101,132	400,206
Hardwood	135,292	25,123	110,169	31,651	141,820
Total	500,979	91,736	409,243	132,783	542,026
Composite panels					
Softwood	41,813	3,174	38,639	3,430	42,069
Hardwood	4,960	52	4,908	7,473	12,381
Total	46,773	3,226	43,547	10,903	54,450
Other industrial					
Softwood	16,154	1,496	14,658	1,653	16,311
Hardwood	713	0	713	48	761
Total	16,867	1,496	15,371	1,701	17,072
All products					
Softwood	906,092	112,364	793,728	146,493	940,221
Hardwood	216,569	30,321	186,248	48,186	234,434
Total	1,122,661	142,685	979,976	194,679	1,174,655

^a Includes roundwood chipped.

Table 8—Saw-log volume by destination, source, and species group, Georgia, 2001

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Georgia (retained)	448,969	392,119	56,850
Exports to:			
Alabama	25,315	23,692	1,623
Florida	6,506	5,985	521
North Carolina	1,654	127	1,527
South Carolina	2,603	2,061	542
Tennessee	84	84	0
Total	36,162	31,949	4,213
Imports from:			
Alabama	1,577	999	578
Florida	18,277	18,158	119
North Carolina	274	264	10
South Carolina	15,950	15,255	695
Tennessee	2,160	2,143	17
Total	38,238	36,819	1,419

Table 9—Veneer volume by destination, source, and species group, Georgia, 2001

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Georgia (retained)	62,846	49,238	13,608
Exports to:			
Alabama	3,601	3,143	458
Florida	5,978	5,978	0
Indiana	11	11	0
North Carolina	103	0	103
South Carolina	372	0	372
Total	10,065	9,132	933
Imports from:			
Alabama	5,269	2,332	2,937
Florida	209	0	209
Kentucky	2,126	90	2,036
North Carolina	637	547	90
Ohio	48	0	48
South Carolina	412	400	12
Tennessee	437	0	437
Virginia	1,916	90	1,826
Total	11,054	3,459	7,595

Table 10—Pulpwood volume by destination, source, and species group, Georgia, 2001^a

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Georgia (retained)	409,243	299,074	110,169
Exports to:			
Alabama	42,617	30,404	12,213
Arkansas	1,603	0	1,603
Florida	34,968	28,233	6,735
Louisiana	221	210	11
Mississippi	3	0	3
North Carolina	427	0	427
South Carolina	2	2	0
Tennessee	10,912	7,764	3,148
Texas	983	0	983
Total	91,736	66,613	25,123
Imports from:			
Alabama	28,101	26,400	1,701
Arkansas	24	21	3
Florida	60,122	48,609	11,513
Mississippi	1	1	0
North Carolina	11	8	3
South Carolina	44,509	26,081	18,428
Tennessee	15	12	3
Total	132,783	101,132	31,651

^a Includes roundwood chipped delivered to nonpulp mills, then chipped and sold to pulpmills.

Table 11—Composite panel volume by destination, source, and species group, Georgia, 2001

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Georgia (retained)	43,547	38,639	4,908
Exports to:			
Alabama	273	268	5
South Carolina	1,400	1,400	0
Tennessee	1,553	1,506	47
Total	3,226	3,174	52
Imports from:			
Alabama	79	79	0
Florida	7,407	0	7,407
South Carolina	3,417	3,351	66
Total	10,903	3,430	7,473

Table 12—Other industrial volume by destination, source, and species group, Georgia, 2001^a

Destination and source	All species	Species group	
		Softwood	Hardwood
<i>thousand cubic feet</i>			
Georgia (retained)	15,371	14,658	713
Exports to:			
Alabama	78	78	0
Florida	1,196	1,196	0
South Carolina	155	155	0
Virginia	67	67	0
Total	1,496	1,496	0
Imports from:			
Alabama	48	0	48
Florida	1,615	1,615	0
South Carolina	38	38	0
Total	1,701	1,653	48

^a Includes poles, posts, mulch, firewood, log homes, charcoal, and all other industrial mills.

Table 13—Primary mill residue volume by roundwood type, species group, and residue type, Georgia, 2001

Roundwood type and species group	All types	Residue type			
		Bark	Coarse	Sawdust	Shavings
thousand cubic feet					
Saw logs					
Softwood	265,496	37,773	126,859	62,861	38,003
Hardwood	34,648	6,603	15,817	12,127	101
Total	300,144	44,376	142,676	74,988	38,104
Veneer logs					
Softwood	34,750	4,997	16,134	13,619	0
Hardwood	15,784	2,496	6,838	6,450	0
Total	50,534	7,493	22,972	20,069	0
Pulpwood					
Softwood	40,164	40,164	0	0	0
Hardwood	17,608	17,608	0	0	0
Total	57,772	57,772	0	0	0
Composite panels					
Softwood	9,395	9,395	0	0	0
Hardwood	3,168	3,168	0	0	0
Total	12,563	12,563	0	0	0
Other industrial ^a					
Softwood	24,674	13,811	10,450	413	0
Hardwood	425	95	238	92	0
Total	25,099	13,906	10,688	505	0
Total					
Softwood	374,479	106,140	153,443	76,893	38,003
Hardwood	71,633	29,970	22,893	18,669	101
Total	446,112	136,110	176,336	95,562	38,104

^a Includes poles, pilings, posts, and other industrial products.

Table 14—Disposal of residue at primary wood-using plants by product, species group, and type of residue, Georgia, 1999 and 2001

Product and species group	All types		Bark		Coarse		Sawdust		Shavings	
	1999	2001	1999	2001	1999	2001	1999	2001	1999	2001
<i>thousand cubic feet</i>										
Fiber products										
Softwood	154,119	131,770	0	0	143,489	127,028	3,701	1,563	6,929	3,179
Hardwood	16,772	16,033	0	0	16,762	16,033	7	0	3	0
Total	170,891	147,803	0	0	160,251	143,061	3,708	1,563	6,932	3,179
Particleboard										
Softwood	62,930	59,330	0	0	10,652	10,652	26,056	24,896	26,222	23,782
Hardwood	954	954	0	0	561	561	393	393	0	0
Total	63,884	60,284	0	0	11,213	11,213	26,449	25,289	26,222	23,782
Sawn products										
Softwood	3,726	3,533	0	0	3,726	3,533	0	0	0	0
Hardwood	1,578	1,596	0	0	1,578	1,596	0	0	0	0
Total	5,304	5,129	0	0	5,304	5,129	0	0	0	0
Fuel										
Softwood	135,973	124,645	81,848	73,098	6,774	5,218	42,769	40,652	4,582	5,677
Hardwood	52,289	46,077	30,251	24,812	3,404	3,771	18,352	17,425	282	69
Total	188,262	170,722	112,099	97,910	10,178	8,989	61,121	58,077	4,864	5,746
Miscellaneous										
Softwood	39,327	49,093	25,118	30,988	3,505	6,110	6,891	7,258	3,813	4,737
Hardwood	6,421	6,455	4,253	4,720	1,601	910	551	793	16	32
Total	45,748	55,548	29,371	35,708	5,106	7,020	7,442	8,051	3,829	4,769
Not used										
Softwood	8,361	6,108	3,280	2,054	964	902	4,116	2,524	1	628
Hardwood	581	518	374	438	56	22	151	58	0	0
Total	8,942	6,626	3,654	2,492	1,020	924	4,267	2,582	1	628
All products										
Softwood	404,436	374,479	110,246	106,140	169,110	153,443	83,533	76,893	41,547	38,003
Hardwood	78,595	71,633	34,878	29,970	23,962	22,893	19,454	18,669	301	101
Total	483,031	446,112	145,124	136,110	193,072	176,336	102,987	95,562	41,848	38,104

Table 15—Roundwood timber products output by product and species group, Southeast Region of Georgia, 1999 and 2001

Product and species group	Year		Change	Percent change
	1999	2001		
thousand cubic feet				
Saw logs				
Softwood	161,085	160,733	-352	-0.2
Hardwood	12,669	14,119	1,450	11.4
Total	173,754	174,852	1,098	0.6
Veneer logs				
Softwood	8,767	3,175	-5,592	-63.8
Hardwood	2,216	2,227	11	0.5
Total	10,983	5,402	-5,581	-50.8
Pulpwood ^a				
Softwood	177,758	171,232	-6,526	-3.7
Hardwood	52,019	46,342	-5,677	-10.9
Total	229,777	217,574	-12,203	-5.3
Composite panels				
Softwood	2,006	2,006	0	--
Hardwood	1,322	1,322	0	--
Total	3,328	3,328	0	--
Other industrial				
Softwood	12,804	10,800	-2,004	-15.7
Hardwood	0	0	0	--
Total	12,804	10,800	-2,004	-15.7
All industrial				
Softwood	362,420	347,946	-14,474	-4.0
Hardwood	68,226	64,010	-4,216	-6.2
Total	430,646	411,956	-18,690	-4.3

-- = negligible.

^a Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (6,258,000 cubic feet in 1999 and 4,577,000 cubic feet in 2001).

Table 16—Roundwood timber products output by county, product, and species group, Southeast Region of Georgia, 2001

County	All products		Saw logs		Veneer logs		Pulpwood ^a		Composite panels		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>thousand cubic feet</i>												
Appling	17,531	1,963	6,432	533	0	115	10,842	1,315	0	0	257	0
Atkinson	5,759	172	1,810	34	0	0	3,303	95	118	43	528	0
Bacon	6,003	1,579	2,374	533	0	67	3,371	979	0	0	258	0
Brantley	19,418	1,093	8,790	0	0	0	10,162	1,093	0	0	466	0
Bryan	5,202	1,299	2,303	0	0	0	2,755	1,299	0	0	144	0
Bulloch	10,679	2,515	7,099	13	138	5	3,261	2,497	0	0	181	0
Camden	13,859	1,102	6,246	0	0	0	7,613	1,102	0	0	0	0
Candler	8,280	884	5,074	25	0	81	3,206	778	0	0	0	0
Charlton	12,976	580	5,750	15	0	0	6,304	565	0	0	922	0
Chatham	3,801	1,776	642	25	0	67	3,158	1,684	0	0	1	0
Clinch	17,358	1,326	9,452	2	0	0	7,387	845	0	479	519	0
Coffee	9,439	1,574	2,634	744	497	41	5,687	768	236	21	385	0
Dodge	7,068	3,702	3,106	756	248	234	3,215	2,712	354	0	145	0
Echols	15,944	1,502	7,653	2	0	21	8,172	1,000	0	479	119	0
Effingham	13,166	2,689	6,288	129	0	137	6,820	2,423	0	0	58	0
Emanuel	16,662	3,088	9,962	435	138	58	6,025	2,531	354	64	183	0
Evans	4,444	954	2,815	12	0	33	1,508	909	0	0	121	0
Glynn	16,858	1,402	8,216	1	0	0	8,642	1,401	0	0	0	0
Jeff Davis	7,649	2,735	3,059	811	994	151	3,319	1,773	0	0	277	0
Jenkins	6,091	2,438	3,926	361	0	0	2,088	2,077	0	0	77	0
Johnson	2,473	1,948	888	857	0	32	1,349	1,059	236	0	0	0
Laurens	6,217	2,074	3,860	1,233	415	22	1,574	798	236	21	132	0
Liberty	8,984	2,177	3,996	0	0	0	4,639	2,177	0	0	349	0
Long	9,332	3,265	3,119	535	0	0	5,745	2,730	0	0	468	0
McIntosh	9,799	1,476	2,586	0	0	0	6,986	1,476	0	0	227	0
Montgomery	2,597	2,262	585	1,270	0	115	1,788	877	118	0	106	0
Pierce	8,873	1,478	3,878	533	0	67	4,350	878	0	0	645	0
Screven	11,294	3,391	7,584	488	0	328	3,600	2,575	0	0	110	0
Tattnell	8,137	1,239	5,766	12	0	81	2,000	1,146	0	0	371	0
Telfair	8,051	2,970	2,546	1,845	497	117	4,555	814	118	194	335	0
Toombs	6,260	2,195	3,109	1,196	0	257	2,978	742	0	0	173	0
Treutlen	1,737	658	263	0	0	47	1,334	611	0	0	140	0
Ware	22,606	275	10,448	2	0	0	9,839	273	0	0	2,319	0
Wayne	19,413	1,978	7,559	522	0	0	11,256	1,456	0	0	598	0
Wheeler	3,986	2,251	915	1,195	248	151	2,401	884	236	21	186	0
All counties	347,946	64,010	160,733	14,119	3,175	2,227	171,232	46,342	2,006	1,322	10,800	0

^a Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (4,577,000 cubic feet in 2001).

Table 17—Roundwood timber products output by product and species group Southwest Region of Georgia, 1999 and 2001

Product and species group	Year		Change	Percent change
	1999	2001		
thousand cubic feet				
Saw logs				
Softwood	77,846	69,646	-8,200	-10.5
Hardwood	5,049	4,963	-86	-1.7
Total	82,895	74,609	-8,286	-10.0
Veneer logs				
Softwood	8,096	8,096	0	--
Hardwood	3,219	3,219	0	--
Total	11,315	11,315	0	--
Pulpwood ^a				
Softwood	43,915	40,595	-3,320	-7.6
Hardwood	22,298	24,916	2,618	11.7
Total	66,213	65,511	-702	-1.1
Composite panels				
Softwood	6,140	6,140	0	--
Hardwood	2,532	2,532	0	--
Total	8,672	8,672	0	--
Other industrial				
Softwood	3,083	2,832	-251	-8.1
Hardwood	0	0	0	--
Total	3,083	2,832	-251	-8.1
All industrial				
Softwood	139,080	127,309	-11,771	-8.5
Hardwood	33,098	35,630	2,532	7.7
Total	172,178	162,939	-9,239	-5.4

-- = negligible.

^a Includes roundwood delivered to nonpulp mills, then chipped and sold to pulpmills (2,548,000 cubic feet in 1999 and 998,000 cubic feet in 2001).

Table 18—Roundwood timber products output by county, product, and species group, Southwest Region of Georgia, 2001

County	All products		Saw logs		Veneer logs		Pulpwood ^a		Composite panels		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>thousand cubic feet</i>												
Baker	2,832	721	205	0	478	0	2,038	721	0	0	111	0
Ben Hill	5,685	4,230	1,889	694	248	83	2,489	3,410	945	43	114	0
Berrien	5,534	733	3,904	0	248	41	941	501	118	191	323	0
Brooks	7,278	619	5,342	0	358	0	1,210	598	236	21	132	0
Colquitt	9,518	445	7,067	0	478	0	1,558	381	354	64	61	0
Cook	1,876	798	1,489	441	0	0	269	197	118	160	0	0
Crisp	2,742	4,204	1,388	42	0	0	1,040	4,098	236	64	78	0
Decatur	7,269	4,471	1,679	1,195	896	1,246	4,585	2,030	0	0	109	0
Dooly	5,134	1,222	1,932	310	0	0	2,910	783	118	129	174	0
Early	5,109	1,331	1,514	512	478	207	3,117	612	0	0	0	0
Grady	6,834	4,050	2,833	227	896	458	2,823	3,344	118	21	164	0
Irwin	5,380	1,489	2,863	21	745	83	1,124	904	472	481	176	0
Lanier	2,905	64	2,113	34	0	0	693	30	0	0	99	0
Lowndes	6,967	1,104	4,032	34	0	0	2,816	591	0	479	119	0
Miller	1,679	592	629	113	239	207	811	272	0	0	0	0
Mitchell	7,502	2,215	1,731	0	776	53	3,113	1,949	1,536	213	346	0
Seminole	1,990	962	265	113	239	289	1,408	560	0	0	78	0
Thomas	8,650	1,079	5,979	113	657	261	1,917	705	0	0	97	0
Tift	1,414	238	627	0	248	41	94	47	236	150	209	0
Turner	4,938	508	3,789	0	248	83	641	210	236	215	24	0
Wilcox	12,321	1,484	9,079	846	248	83	1,821	426	945	129	228	0
Worth	13,752	3,071	9,297	268	616	84	3,177	2,547	472	172	190	0
All counties	127,309	35,630	69,646	4,963	8,096	3,219	40,595	24,916	6,140	2,532	2,832	0

^a Includes roundwood delivered to nonpulpmills, then chipped and sold to pulpmills (998,000 cubic feet in 2001).

Table 19—Roundwood timber products output by product and species group, Central Region of Georgia, 1999 and 2001

Product and species group	Year		Change	Percent change
	1999	2001		
thousand cubic feet				
Saw logs				
Softwood	133,152	125,531	-7,621	-5.7
Hardwood	27,626	24,244	-3,382	-12.2
Total	160,778	149,775	-11,003	-6.8
Veneer logs				
Softwood	21,176	22,597	1,421	6.7
Hardwood	4,524	4,340	-184	-4.1
Total	25,700	26,937	1,237	4.8
Pulpwood ^a				
Softwood	125,472	98,872	-26,600	-21.2
Hardwood	63,040	49,726	-13,314	-21.1
Total	188,512	148,598	-39,914	-21.2
Composite panels				
Softwood	8,218	14,247	6,029	73.4
Hardwood	755	686	-69	-9.1
Total	8,973	14,933	5,960	66.4
Other industrial				
Softwood	906	863	-43	-4.7
Hardwood	82	82	0	--
Total	988	945	-43	-4.4
All industrial				
Softwood	288,924	262,110	-26,814	-9.3
Hardwood	96,027	79,078	-16,949	-17.7
Total	384,951	341,188	-43,763	-11.4

-- = negligible.

^a Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (3,286,000 cubic feet in 1999 and 2,033,000 cubic feet in 2001).

Table 20—Roundwood timber products output by county, product, and species group, Central Region of Georgia, 2001

County	All products		Saw logs		Veneer logs		Pulpwood ^a		Composite panels		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>thousand cubic feet</i>												
Baldwin	4,707	1,405	2,079	531	1,109	250	1,518	624	0	0	1	0
Bibb	2,948	369	1,070	15	138	38	1,622	316	118	0	0	0
Bleckley	2,643	286	1,993	244	0	5	645	37	0	0	5	0
Burke	11,606	6,260	5,862	1,099	0	65	5,712	5,096	0	0	32	0
Butts	3,478	239	2,173	85	277	0	910	154	118	0	0	0
Calhoun	2,609	2,146	697	731	0	623	1,912	792	0	0	0	0
Chattahoochee	3,818	2,272	2,152	264	0	0	1,666	2,008	0	0	0	0
Clay	2,878	202	1,560	0	0	78	1,318	124	0	0	0	0
Columbia	9,425	445	8,526	120	0	0	697	325	196	0	6	0
Crawford	4,090	2,793	1,247	344	0	5	2,725	2,401	118	43	0	0
Dougherty	3,665	3,426	2,185	0	358	0	1,040	3,426	0	0	82	0
Glascok	3,295	726	2,360	219	277	0	540	507	118	0	0	0
Greene	8,847	407	2,152	116	3,956	65	399	180	2,215	46	125	0
Hancock	12,895	1,816	7,081	553	1,525	54	3,241	1,191	971	18	77	0
Harris	6,511	2,234	3,593	1,190	361	151	2,557	893	0	0	0	0
Houston	2,703	405	1,557	317	138	5	890	62	118	21	0	0
Jasper	3,690	2,005	2,061	1,372	554	158	1,053	475	0	0	22	0
Jefferson	5,241	3,151	3,535	993	0	70	1,470	2,088	236	0	0	0
Jones	4,850	1,304	2,125	894	970	76	1,637	334	118	0	0	0
Lamar	1,754	764	1,012	510	0	0	742	254	0	0	0	0
Lee	5,677	2,832	2,868	0	0	0	2,573	2,789	236	43	0	0
Lincoln	3,848	447	2,001	133	831	0	497	308	513	6	6	0
Macon	5,917	3,159	1,938	0	0	0	3,861	3,077	118	0	0	82
Marion	5,258	1,091	1,255	264	0	0	4,003	827	0	0	0	0
McDuffie	4,321	1,113	2,984	252	810	65	423	796	98	0	6	0
Monroe	5,322	1,495	2,780	644	554	264	1,988	587	0	0	0	0
Morgan	6,329	1,464	1,880	1,058	3,321	65	133	320	995	21	0	0
Muscogee	1,268	865	731	176	180	327	357	362	0	0	0	0
Peach	280	1	0	0	0	0	280	1	0	0	0	0
Pike	1,575	288	975	132	180	151	420	5	0	0	0	0
Pulaski	1,242	522	225	242	0	0	754	237	118	43	145	0
Putnam	7,448	986	2,702	366	1,410	157	3,058	442	236	21	42	0
Quitman	6,880	551	4,657	88	0	211	2,105	231	118	21	0	0
Randolph	8,717	2,194	3,663	341	0	704	5,054	1,149	0	0	0	0
Richmond	3,525	1,191	2,615	30	138	65	766	1,096	0	0	6	0
Schley	2,292	709	621	176	0	0	1,671	533	0	0	0	0
Stewart	14,311	2,547	6,121	176	0	0	8,072	2,350	118	21	0	0
Sumter	7,857	1,960	3,375	176	0	0	4,219	1,720	118	64	145	0
Talbot	7,595	1,831	1,402	328	180	378	5,777	931	236	194	0	0
Taliaferro	3,993	705	1,714	317	874	0	251	364	1,154	24	0	0
Taylor	5,065	240	1,359	176	0	5	2,879	38	827	21	0	0
Terrell	3,328	691	1,595	389	0	0	1,733	302	0	0	0	0
Twiggs	4,480	2,895	1,225	2,064	415	5	2,840	826	0	0	0	0
Upson	2,726	482	780	123	180	151	1,766	208	0	0	0	0
Warren	8,438	1,572	5,054	597	970	27	1,703	933	711	15	0	0
Washington	13,661	7,447	9,027	3,014	554	70	3,767	4,363	236	0	77	0
Webster	3,789	1,455	1,846	956	0	0	1,825	499	118	0	0	0
Wilkes	9,536	1,809	2,369	759	1,783	9	1,445	977	3,853	64	86	0
Wilkinson	5,779	3,881	2,749	1,670	554	43	2,358	2,168	118	0	0	0
All counties	262,110	79,078	125,531	24,244	22,597	4,340	98,872	49,726	14,247	686	863	82

^a Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (2,033,000 cubic feet in 2001).

Table 21—Roundwood timber products output by product and species group, North Central Region of Georgia, 1999 and 2001

Product and species group	Year		Change	Percent change
	1999	2001		
thousand cubic feet				
Saw logs				
Softwood	47,404	41,563	-5,841	-12.3
Hardwood	11,051	12,689	1,638	14.8
Total	58,455	54,252	-4,203	-7.2
Veneer logs				
Softwood	20,774	23,346	2,572	12.4
Hardwood	4,181	3,920	-261	-6.2
Total	24,955	27,266	2,311	9.3
Pulpwood ^a				
Softwood	54,837	30,604	-24,233	-44.2
Hardwood	15,383	6,984	-8,399	-54.6
Total	70,220	37,588	-32,632	-46.5
Composite panels				
Softwood	20,081	15,426	-4,655	-23.2
Hardwood	1,202	322	-880	-73.2
Total	21,283	15,748	-5,535	-26.0
Other industrial				
Softwood	2,421	869	-1,552	-64.1
Hardwood	526	503	-23	-4.4
Total	2,947	1,372	-1,575	-53.4
All industrial				
Softwood	145,517	111,808	-33,709	-23.2
Hardwood	32,343	24,418	-7,925	-24.5
Total	177,860	136,226	-41,634	-23.4

^a Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (2,538,000 cubic feet in 1999 and 2,722,000 cubic feet in 2001).

Table 22—Roundwood timber products output by county, product, and species group, North Central Region of Georgia, 2001

County	All products		Saw logs		Veneer logs		Pulpwood ^a		Composite panels		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>thousand cubic feet</i>												
Banks	2,491	533	395	408	197	82	36	4	1,837	39	26	0
Barrow	1,548	276	0	0	597	73	0	183	951	20	0	0
Carroll	8,725	2,949	1,946	2,057	2,294	454	4,485	438	0	0	0	0
Clarke	1,791	58	0	58	1,791	0	0	0	0	0	0	0
Clayton	921	75	894	72	0	0	27	3	0	0	0	0
Cobb	2,182	652	1,832	508	192	5	158	75	0	0	0	64
Coweta	5,042	837	3,402	633	361	151	1,279	53	0	0	0	0
De Kalb	850	883	585	616	180	205	85	62	0	0	0	0
Douglas	1,189	74	780	61	180	0	229	13	0	0	0	0
Elbert	2,066	889	0	790	197	11	480	61	1,313	27	76	0
Fayette	1,885	69	1,545	49	180	0	160	20	0	0	0	0
Forsyth	1,643	284	73	37	0	153	460	71	1,110	23	0	0
Franklin	1,159	513	838	433	295	65	0	15	0	0	26	0
Fulton	6,242	1,771	4,150	1,234	541	157	1,551	316	0	0	0	64
Gwinnett	2,982	1,718	196	963	1,016	325	391	248	711	15	668	167
Hall	2,250	272	387	226	197	11	4	0	1,662	35	0	0
Haralson	7,131	602	2,349	264	1,752	75	3,030	263	0	0	0	0
Hart	197	90	0	90	197	0	0	0	0	0	0	0
Heard	6,327	947	1,732	288	361	175	4,234	276	0	0	0	208
Henry	3,554	1,130	2,758	827	319	59	477	244	0	0	0	0
Jackson	3,788	175	7	2	1,592	124	67	4	2,122	45	0	0
Madison	5,441	388	0	18	3,582	61	10	270	1,837	39	12	0
Meriwether	6,557	2,248	2,230	946	541	554	3,786	748	0	0	0	0
Newton	2,742	391	1,184	279	554	59	1,004	53	0	0	0	0
Oconee	177	148	4	106	0	0	173	42	0	0	0	0
Oglethorpe	9,008	638	2,502	438	3,359	65	313	79	2,773	56	61	0
Paulding	7,260	1,406	3,805	361	632	554	2,823	491	0	0	0	0
Polk	5,981	587	3,495	133	0	0	2,486	454	0	0	0	0
Rockdale	223	6	0	0	138	5	85	1	0	0	0	0
Spalding	1,023	425	390	215	138	54	495	156	0	0	0	0
Troup	6,953	2,781	4,084	242	632	378	2,237	2,161	0	0	0	0
Walton	2,480	603	0	335	1,331	65	39	180	1,110	23	0	0
All counties	111,808	24,418	41,563	12,689	23,346	3,920	30,604	6,984	15,426	322	869	503

^a Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (2,722,000 cubic feet in 2001).

Table 23—Roundwood timber products output by product and species group, North Region of Georgia, 1999 and 2001

Product and species group	Year		Change	Percent change
	1999	2001		
<i>thousand cubic feet</i>				
Saw logs				
Softwood	27,394	26,595	-799	-2.9
Hardwood	5,373	5,048	-325	-6.0
Total	32,767	31,643	-1,124	-3.4
Veneer logs				
Softwood	734	1,156	422	57.5
Hardwood	1,718	835	-883	-51.4
Total	2,452	1,991	-461	-18.8
Pulpwood^a				
Softwood	29,035	24,384	-4,651	-16.0
Hardwood	9,795	7,324	-2,471	-25.2
Total	38,830	31,708	-7,122	-18.3
Composite panels				
Softwood	3,551	3,994	443	12.5
Hardwood	365	98	-267	-73.2
Total	3,916	4,092	176	4.5
Other industrial				
Softwood	791	790	-1	-0.1
Hardwood	150	128	-22	-14.7
Total	941	918	-23	-2.4
All industrial				
Softwood	61,505	56,919	-4,586	-7.5
Hardwood	17,401	13,433	-3,968	-22.8
Total	78,906	70,352	-8,554	-10.8

^a Includes roundwood delivered to nonpulp mills, then chipped and sold to pulp mills (1,317,000 cubic feet in 1999 and 1,362,000 cubic feet in 2001).

Table 24—Roundwood timber products output by county, product, and species group, North Region of Georgia, 2001

County	All products		Saw logs		Veneer logs		Pulpwood ^a		Composite panels		Other industrial	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
<i>thousand cubic feet</i>												
Bartow	7,425	679	4,985	0	0	0	2,440	615	0	0	0	64
Catoosa	553	440	179	425	0	0	283	15	0	0	91	0
Chattooga	5,189	1,082	2,489	414	0	0	2,489	668	0	0	211	0
Cherokee	6,362	836	2,868	496	516	60	2,978	216	0	0	0	64
Dade	868	704	41	36	0	0	225	649	602	19	0	0
Dawson	2,410	510	639	231	0	0	661	256	1,110	23	0	0
Fannin	1,071	843	538	401	0	351	533	91	0	0	0	0
Floyd	9,216	1,529	4,903	862	0	0	4,045	662	268	5	0	0
Gilmer	2,461	279	1,007	221	0	0	1,454	58	0	0	0	0
Gordon	3,005	113	1,526	31	0	0	1,479	82	0	0	0	0
Habersham	1,115	416	846	111	197	305	4	0	0	0	68	0
Lumpkin	1,098	56	505	50	0	0	585	6	0	0	8	0
Murray	3,613	2,826	1,735	50	0	0	1,878	2,776	0	0	0	0
Pickens	1,453	322	169	101	0	0	1,284	221	0	0	0	0
Rabun	333	665	265	610	0	55	1	0	0	0	67	0
Stephens	661	312	389	236	246	64	0	12	0	0	26	0
Towns	226	196	226	196	0	0	0	0	0	0	0	0
Union	660	57	568	55	0	0	92	2	0	0	0	0
Walker	3,751	1,257	976	450	0	0	1,569	779	904	28	302	0
White	2,472	73	1,107	50	197	0	41	0	1,110	23	17	0
Whitfield	2,977	238	634	22	0	0	2,343	216	0	0	0	0
All counties	56,919	13,433	26,595	5,048	1,156	835	24,384	7,324	3,994	98	790	128

^a Includes roundwood delivered to nonpulp mills, then chipped and sold to pulpmills (1,362,000 cubic feet in 2001).

Table 25—Total roundwood output by product, species group, and source of material, Georgia, 2001

Product and species group	All sources	Total	Growing-stock trees		Other sources
			Sawtimber	Poletimber	
thousand cubic feet					
Saw logs					
Softwood	424,068	414,271	397,708	16,563	9,797
Hardwood	61,063	58,422	55,025	3,397	2,641
Total	485,131	472,692	452,733	19,959	12,439
Veneer logs and bolts					
Softwood	58,370	57,022	56,452	570	1,348
Hardwood	14,541	14,427	14,282	144	114
Total	72,911	71,449	70,735	714	1,462
Pulpwood					
Softwood	365,687	356,444	165,397	191,047	9,243
Hardwood	135,292	124,502	56,370	68,132	10,790
Total	500,979	480,945	221,766	259,179	20,034
Composite panels					
Softwood	41,813	40,183	16,475	23,707	1,630
Hardwood	4,960	4,541	1,726	2,815	419
Total	46,773	44,723	18,201	26,522	2,050
Poles and posts					
Softwood	11,681	11,411	10,768	643	270
Hardwood	0	0	0	0	0
Total	11,681	11,411	10,768	643	270
Other miscellaneous					
Softwood	4,473	4,370	2,551	1,818	103
Hardwood	713	606	354	252	107
Total	5,186	4,976	2,905	2,071	210
Total industrial products					
Softwood	906,092	883,700	649,352	234,348	22,392
Hardwood	216,569	202,497	127,756	74,740	14,072
Total	1,122,661	1,086,197	777,109	309,088	36,464
Fuelwood					
Softwood	8,471	5,877	4,051	1,826	2,594
Hardwood	55,522	32,770	25,147	7,623	22,752
Total	63,993	38,647	29,198	9,450	25,346
All products					
Softwood	914,563	889,577	653,403	236,174	24,986
Hardwood	272,091	235,267	152,903	82,364	36,824
Total	1,186,654	1,124,844	806,306	318,538	61,810

Numbers in rows and columns may not sum to totals due to rounding.

Table 26—Total roundwood output by species group, survey region, and ownership class, Georgia, 2001

Species group and survey region		Ownership class		
		Public	Forest industry	Nonindustrial private
<i>thousand cubic feet</i>				
Softwoods				
Southeast	351,200	6,874	162,934	181,392
Southwest	128,500	4,180	20,495	103,825
Central	264,560	13,016	74,746	176,797
North Central	112,853	3,439	25,122	84,292
North	57,450	5,526	7,915	44,009
Total softwoods	914,563	33,035	291,212	590,316
Hardwoods				
Southeast	80,421	4,692	17,449	58,280
Southwest	44,764	27	4,610	40,128
Central	99,350	2,269	17,890	79,192
North Central	30,680	670	2,151	27,859
North	16,876	5,873	3,098	7,906
Total hardwoods	272,091	13,530	45,197	213,364
All species	1,186,654	46,565	336,409	803,680

Numbers in rows and columns may not sum to totals due to rounding.

Table 27—Total roundwood output by species group, detailed species group, and product, Georgia, 2001

		Product						
Species group and detailed species group	Total	Saw log	Veneer	Pulpwood	Composite panel	Poles and posts	Other miscellaneous	Fuel- wood
thousand cubic feet								
Softwood								
Cedar	1,166	152	456	91	445	3	9	11
Longleaf-slash pine	366,162	174,972	8,408	162,362	6,629	8,169	2,230	3,391
White pine	883	420	0	455	0	0	0	8
Loblolly-shortleaf pine	500,223	228,213	48,419	183,553	30,643	3,020	1,741	4,634
Other yellow pines	34,450	14,504	1,018	13,857	3,979	350	424	319
Cypress	11,499	5,704	69	5,294	118	139	69	106
Hemlock	181	103	0	76	0	0	0	2
Total softwoods	914,563	424,068	58,370	365,687	41,813	11,681	4,473	8,471
Hardwood								
Soft maple	16,117	3,415	566	8,429	359	0	60	3,289
Hard maple	36	21	0	8	0	0	0	7
Other birch	863	133	135	392	28	0	0	176
Hickory	13,241	3,488	678	6,239	70	0	64	2,702
Beech	752	135	76	387	0	0	0	153
Ash	4,194	1,129	125	1,975	88	0	21	855
Sweetgum	42,160	10,747	2,097	20,168	392	0	153	8,604
Yellow-poplar	24,671	6,988	1,644	10,407	465	0	134	5,035
Blackgum-tupelo	34,410	4,567	1,633	19,968	1,206	0	14	7,021
Sycamore	540	202	27	185	8	0	8	110
Cottonwood	92	11	24	38	0	0	0	19
Black cherry	3,501	534	182	1,830	229	0	12	714
Select white oaks	13,787	4,000	1,178	5,630	122	0	43	2,813
Other white oaks	11,287	2,795	660	5,380	129	0	19	2,304
Select red oaks	3,382	1,041	248	1,313	68	0	22	690
Other red oaks	83,855	17,564	4,201	43,516	1,315	0	149	17,111
Basswood	39	8	0	23	0	0	0	8
Elm	3,102	896	178	1,356	39	0	0	633
Other Eastern hardwoods	16,061	3,389	890	8,048	442	0	15	3,277
Total hardwoods	272,091	61,063	14,541	135,292	4,960	0	713	55,522
All species	1,186,654	485,131	72,911	500,979	46,773	11,681	5,186	63,993

Numbers in rows and columns may not sum to totals due to rounding.

Table 28—Total roundwood output by species group, detailed species group, and ownership class, Georgia, 2001

Species group and detailed species group	Total	Ownership class		
		Public	Forest industry	Nonindustrial private
<i>thousand cubic feet</i>				
Softwood				
Cedar	1,166	22	627	517
Longleaf-slash pine	366,162	7,199	141,610	217,352
White pine	883	86	455	342
Loblolly-shortleaf pine	500,223	20,917	140,403	338,904
Other yellow pines	34,450	1,915	7,368	25,167
Cypress	11,499	167	3,356	7,976
Hemlock	181	124	0	57
Total softwoods	914,563	30,429	293,819	590,316
Hardwood				
Soft maple	16,117	1,087	2,997	12,033
Hard maple	36	0	2	34
Other birch	863	204	100	559
Hickory	13,241	933	2,570	9,737
Beech	752	0	199	553
Ash	4,194	266	860	3,068
Sweetgum	42,160	1,444	6,930	33,786
Yellow-poplar	24,671	1,282	2,523	20,866
Blackgum-tupelo	34,410	1,057	7,157	26,197
Sycamore	540	107	38	395
Cottonwood	92	0	20	73
Black cherry	3,501	136	262	3,102
Select white oaks	13,787	682	1,616	11,490
Other white oaks	11,287	2,201	2,256	6,830
Select red oaks	3,382	98	578	2,706
Other red oaks	83,855	3,224	13,924	66,707
Basswood	39	0	0	39
Elm	3,102	72	453	2,577
Other Eastern hardwoods	16,061	737	2,711	12,613
Total hardwoods	272,091	13,530	45,197	213,364
All species	1,186,654	43,958	339,016	803,680

Numbers in rows and columns may not sum to totals due to rounding.



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Johnson, Tony G.; Wells, John L. 2004. Georgia's timber industry—an assessment of timber product output and use, 2001. Resour. Bull. SRS-92. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 40 p.

In 2001, industrial roundwood output from Georgia's forests totaled 1.12 billion cubic feet, 10 percent less than in 1999. Mill byproducts generated from primary manufacturers declined 7 percent to 439 million cubic feet. Almost all plant residues were used primarily for fuel and fiber products. Pulpwood was the leading roundwood product at 501 million cubic feet; saw logs ranked second at 485 million cubic feet; veneer logs were third at 73 million cubic feet. The number of primary processing plants declined from 188 in 1999 to 170 in 2001. Total receipts declined 7 percent to 1.17 billion cubic feet.

Keywords: Pulpwood, residues, roundwood, saw logs, veneer logs, wood movement.

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